EXHIBIT 74

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF NEW JERSEY

IN RE: JOHNSON & JOHNSON TALCUM POWDER PRODUCTS MARKETING, SALES PRACTICES, AND PRODUCTS LIABILITY LITIGATION

MDL NO. 16-2738(FLW)(LGH)

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THIS DOCUMENT RELATES TO ALL CASES

VOLUME II

_____/

The Videotaped Deposition of GHASSAN SAED, Ph.D.,
Taken at 1 Park Avenue,
2nd Floor Conference Room,
Detroit, Michigan,
Commencing at 8:30 a.m.,
Thursday, February 14, 2019,
Before Jennifer L. Ward, CSR-3717.

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(Appearances continued on Page 346.)

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Detroit, Michigan
Thursday, February 14, 2019
About 8:43 a.m.

THE VIDEOGRAPHER: On the record. This is the continued video deposition of Ghassan Saed, being taken in Detroit, Michigan. Today is February 14th, 2019. The time on the record is approximately 8:43 a.m. Eastern time.

At this time will the attorneys please identify themselves and affiliations, and then our court reporter will swear in the witness.

MS. O'DELL: Leigh O'Dell, Beasley Allen, for the Plaintiffs.

MS. THOMPSON: Margaret Thompson, Beasley Allen, Plaintiffs.

MR. LAPINSKI: Daniel Lapinski, the Wilentz Law Firm, the Plaintiffs.

MR. HEGARTY: Mark Hegarty for the Johnson & Johnson Defendants.

MR. WYATT: Geoffrey Wyatt from Skadden for the J & J Defendants.

MR. LOCKE: Tom Locke from Seyfarth Shaw for the Personal Care Products Council.

MR. MIZGALA: James Mizgala for PTI.

MS. O'DELL: Before we begin, let me

just put a statement on the record. Today's date is February the 14th, 2019.

Yesterday, Imerys Talc America filed bankruptcy. Imerys Talc America has been a principal Defendant in this litigation, and their interests are inextricably intertwined with Johnson & Johnson Defendants and others. There's a stay on all matters, as we understand it, for matters related to Imerys.

We were here in Detroit yesterday preparing, were ready to proceed. We were ready yesterday to proceed with Dr. Saed. We alerted to the court to the stay and asked the court's guidance as to whether the deposition should proceed, in light of the fact that Imerys is not present today and not represented. The court directed us to proceed.

Former counsel for Imerys, Mark Silver, represented to the court that he could weigh Imerys' rights as to the continuation of the deposition. So in light of the court's order, and in light of Mark's Silver's representation, we'll proceed today, but any possibility the deposition will be reopened as to Imerys, we believe is now foreclosed.

MR. HEGARTY: On behalf of Johnson & Johnson Defendants, we refer to the correspondence by Ms. Sharko of yesterday,

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February 13th, for Johnson & Johnson's position with regard to the Imerys filing in today's deposition.

MR. LOCKE: We join in that.

MR. HEGARTY: Okay. Ready? I don't know if you need to reswear in the witness. Okay.

GHASSAN SAED, Ph.D.,

having first been duly sworn, was examined and testified on his oath as follows:

EXAMINATION BY MR. HEGARTY:

Q. Good morning, Dr. Saed.

A. Good morning.

Q. Did you review any documents to prepare to testify here today?

A. Maybe my report.

Q. Did you review any other documents besides your report to prepare to testify today?

A. Anything specific, no.

Q. Did you talk to anyone outside of Plaintiffs' counsel to prepare to testify today?

A. No.

Q. Did you talk with any of the -- of the -- of your co-authors on your manuscript or who were involved in preparing the lab notebooks about either your deposition last month or your deposition today?

A. Anything specific? Like talk about what?

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Q. Talk about what was discussed at your deposition --

A. No.

Q. -- the subject of your deposition?

A. With my lab worker, yes. I was telling them about the whiteout in the notebook.

Q. What lab worker?

A. My research assistant.

Q. What's their name?

A. Rong. We call her Florie, so --

Q. Did you talk with anyone else outside of Plaintiffs' counsel about your deposition last month or your deposition today besides Flora?

A. No.

Q. Since your last deposition, have you spoken with anyone outside of Plaintiffs' counsel about your talc testing or your manuscripts, other than your lab personnel? In other words, anyone outside of Wayne State or outside of our lab personnel, have you talked with them about the testing that you did or your manuscript?

A. The testing that I did, I didn't. About the manuscript, I talked to SRI.

Q. Anyone else?

A. And I talked to regarding the abstracts that

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we submitted to SGO.

Q. Anyone else?

A. No.

Q. Have you prepared any additional invoices of your work -- and let me back up. We were provided with a copy of an additional invoice of your work late last night. I'm going to mark as Exhibit Number 22 a copy of that invoice.

DEPOSITION EXHIBIT 22

Invoice

WAS MARKED BY THE REPORTER

FOR IDENTIFICATION

BY MR. HEGARTY:

Q. Is that the -- the most recent invoice that you prepared for purposes of your work on this litigation?

A. Yes.

Q. Has that invoice been paid?

A. Yes.

Q. You mentioned when we were together last month that you were asked to write an editorial to an open access journal on talc and oxidative stress. Have you started writing that editorial?

A. Not yet.

Q. Did you or anyone else add to or change

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anything in the lab notebooks produced at your last deposition, Exhibits 2 and 3?

A. No.

Q. We received prior to your deposition a number of additional documents that you provided to counsel for Plaintiffs that I'd like to walk through. The first document we received I'm going to mark as Exhibit 23, which is a copy of pages from one of your lab notebooks that were produced last month.

DEPOSITION EXHIBIT 23

Copy of Pages From Lab Notebook

WAS MARKED BY THE REPORTER

FOR IDENTIFICATION

BY MR. HEGARTY:

Q. Is that correct?

A. This is -- which one is this?

Q. I believe this would be the pilot study of the preliminary trial that you did to, as you said, tune up the technique for your testing for your manuscript.

A. Exhibit 3?

MS. O'DELL: Object to the form.

BY MR. HEGARTY:

Q. It should be -- it's the first --

MS. O'DELL: Dr. Saed --

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BY MR. HEGARTY:
Q. -- 30 pages or so of Exhibit 3, correct?
MS. O'DELL: Object to the form. I think you're referring to Exhibit 2.
MR. HEGARTY: Exhibit 2, yes.
BY MR. HEGARTY:
Q. You should be at Exhibit 2.
A. Exhibit 2?
Q. Yes.
A. The first 29 pages.
Q. The first 29 pages; is that correct?
A. Oh, this one here?
Q. Of Exhibit 2.
A. Okay.
Q. Is that right?
A. Yes. Yes. I know now.
Q. As you said last month, those pages represent a preliminary trial or a pilot study for the testing that you ultimately did that's described in your manuscript and your expert report, correct?
A. This was an attempt to -- yes.
Q. Okay. And again, those pages, Exhibit 23, are from original notebook number two, correct, Exhibit Number 2?
A. Yes.

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Q. If you look in Exhibit 23 at page two.
A. Yes. This page?
Q. Yes. There are 500 microliter and 1,000 microliter treatments?
A. Micrograms.
Q. Micrograms, I'm sorry. There -- there are 500 -- let me start over. There are 500 and 1,000 micrograms per milliliter of treatments shown on that page. Where is the data for the 500 microgram per milliliter tests?
A. So this experiment, we started to treat cells with two doses, 500 and a thousand. And this experiment here we did not continue because the RNA was degraded, and we couldn't do any further testing with it. So that's why we stopped here, and we started a new one on -- on -- on page -- the actual manuscript work.
So those doses were not -- the cells were not good, they were not healthy, and they didn't tolerate this treatment, and this is why we think we lost them, because they didn't tolerate this treatment. We're not sure why.
Q. That was going to be my follow-up question. Why, from your standpoint, was the RNA degraded?
A. Oh, RNA could degrade for many reasons.

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Q. Did you --
A. It's very --
Q. I'm sorry.
A. It's a very labile molecule.
Q. Did you conclude that the 500 microgram per milliliter and the thousand microgram per liter dosages were toxic to the cells?
A. Not necessarily. We just lost the RNA. From our practice working with RNA, this is a common problem working with RNA. RNA is a very labile molecule, and it's susceptible to degradation, and so the RNA degraded, and we did not continue, and we started this other experiment.
Q. If you turn over to page 24 --
A. 24.
Q. -- of that part of the notebook.
A. Um-hum.
Q. You have tables --
A. Yes.
Q. -- that report data for a thousand.
A. Correct.
Q. How is that possible?
A. Okay. So this experiment is from part one. This is the poster that we submitted, which is this. Exhibit 3, this data belonged to the first -- first

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trial experiment that we did. It's misplaced here. That's not the right place for it. It's right here.
MS. O'DELL: Dr. Saed, you're pointing to a page in Exhibit 3?
THE WITNESS: This is Exhibit -- Exhibit 3. That's the poster we submitted at SRI, it's right here, and this data exactly is there. It's not supposed to be here.
MS. O'DELL: What -- what page in Exhibit 3 is the poster?
THE WITNESS: It's 62 and 63. This here, right here.
BY MR. HEGARTY:
Q. Okay. We'll come back to that.
A. Exact same data.
Q. Okay.
A. So yes, we tried -- we tried a thousand, and we tried the 500, that was our initial work, because we always -- when we do treatment like this, we always start with the high dose, and then we titrate it down to lower dose.
Q. If we stay on page two of Exhibit 23, or your notebook two --
A. Can you just show me the page, please?
Q. Same page we were looking at.

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A. Okay.
Q. You show on this page using baby powder and talc. Do you see that?
A. Where?
Q. If you look in the experiments, you list 500 micrograms per milliliter of talc. You also list 500 micrograms per milliliter of baby powder that you designate as BP. Do you see that?
A. Yes.
Q. So in this experiment, did you use Johnson baby powder and another manufacturer's talc?
A. Yes, Fisher.
Q. I'm sorry?
A. Fisher.
Q. In fact, you show pictures of both --
A. Correct.
Q. -- on the page before?
A. Correct.
Q. Is there a breakdown of data in this notebook between the baby powder and the talc?
A. We did not continue this experiment because we didn't get RNA, so that's why the first part of the -- of the experiment was done with Fisher, and the manuscript was done with baby powder. We did not continue that because we didn't get RNA. And this is

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very common.
Q. On pages six and seven, you show RNA extraction data?
A. Yes.
Q. Did you not generate any RNA extraction data for the 500 and the thousand milliliter per microgram tests?
A. Okay. So see the ID number?
Q. Yes.
A. All the ID number, and then the ID number here? It says exactly which one we isolated RNA from, so they should correspond. If we isolated RNA, it will be from here. But the problem is, the RNA we isolated was not -- the quality was not good, so we had to redo it.
Q. And none of the numbers that you list for the 500 and the thousand --
A. Um-hum.
Q. -- are listed on the RNA data on six and seven?
A. Yes.
MS. O'DELL: Object.
BY MR. HEGARTY:
Q. So did you actually generate RNA data for the 500 and --

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A. No.
Q. -- 1,000 microgram per milliliters doses?
A. Okay.
MS. O'DELL: Just object to form. Let him finish.
THE WITNESS: Okay.
MS. O'DELL: And then as you're going back and forth, Dr. Saed, in talking about specific pages, just make sure you're really clear --
THE WITNESS: Yeah.
MS. O'DELL: -- what you're referring to so it will -- it will come through on the transcript.
THE WITNESS: Okay. So again, I forgot, what was the question?
BY MR. HEGARTY:
Q. Did you generate RNA extraction data for the 500 and a thousand microgram per milliliter samples?
A. No, nothing -- not from this study.
Q. In looking at pages six and seven, for what samples was this RNA extraction data created? What do they correspond to?
A. Here. The ID is right here.
MS. O'DELL: What page, sir?
THE WITNESS: Page two.

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BY MR. HEGARTY:
Q. Well, you said --
A. Page seven, you have 267, 269, 273, yes?
Q. Yes.
A. And then on the next page, you have -- it has -- everything has a code next to it. So they're all labeled. See that?
Q. Yes. But if you look, Doctor, there is -- for example, 278, on page two, a sample for 278 --
A. Um-hum.
Q. -- and I don't see RNA extraction data for 278 on six or seven.
A. 278. I just want to make sure before I answer you. Okay.
Q. Why is that?
A. We -- probably we lost it.
Q. Do you know?
A. I don't know. What I know from this experiment, the RNA extraction did not work as well as we would like to.
Q. But the data on six and seven do correspond with some of the samples on page two, correct?
A. Some worked, some didn't.
Q. Did you run any enzyme tests, any PCR or ELISA tests on the 500 or 1,000 samples?

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A. From these data?
Q. Yes.
A. No.
Q. Do you still have somewhere, though -- or strike that. With regard to the sample 278 we talked about, did you even run the RNA extraction data?
MS. O'DELL: Objection, form. I'm not sure I understood. Do you mind repeating your question?
BY MR. HEGARTY:
Q. Well, you how a sample. We looked at 278, correct?
A. (Nodding).
Q. And you're nodding your head. And on six and seven there is no RNA extraction data for 278. Did you even try to run the 278 sample?
A. I need to clarify something. There is something missing here, okay. So these are the samples the treatment of cells, okay. You treat the cells, and then after the treatment, as indicated here, 24 hours, 48 hours, 72 hours with the different doses, 500, 1,000, with the -- with the -- with the powder, then you -- after that, you extract RNA.
Q. Right.
A. What I said is some of the extraction

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worked, some didn't, and even the one that they worked, the RNA was degraded.
Q. How do you know if an extraction works or it doesn't?
A. Because when you look at the -- you're trying to -- how do I know if it worked or not? If you look at the ratio of 260 to 280, that's very low, and the yield was very low.
Q. You're looking at the ratio of 260 to 280?
A. Yes. And the -- the yield, how much we got out of the cells was very low to do anything with it.
Q. But why didn't you -- why don't you have a line for 278?
A. 278? I don't know. Maybe we -- maybe we -- we lost it completely. I don't know. I don't remember.
Q. If you turn over to page 20 of this same part of the notebook we're looking at, there you report treatments with 5, 20 and 100 micrograms per milliliter, correct?
A. Correct.
Q. Where is the enzyme data for these tests? In other words, you show --
A. Oh, okay.
Q. -- RNA data on the next couple pages, 22 and

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23. Did you run data for SOD-3, CAT, GST, etcetera?
A. Okay. Let me answer this, please. So this part here, you see how it's scribbled a lot and scratched and all that stuff?
MR. LAPINSKI: What page are you referring to, Doctor?
THE WITNESS: 20. 20 you have the same page, right?
BY MR. HEGARTY:
Q. 20, yes.
A. Okay. This part here, we just started a fresh one here. It's exactly the same one. We started to explain everything in details.
Q. You're jumping over to the main tests?
A. Yes, which this is exactly the same. It's just different -- the way we organized it here better, okay. We didn't cross anything, we didn't do anything, I just scrambled this, and then we started the whole new book from here, explaining everything in details with the sample ID. Let me tell you --
MS. O'DELL: At what page --
THE WITNESS: Let me answer the question.
MS. O'DELL: At what page is that?
THE WITNESS: Oh. From here on,

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from --
MS. O'DELL: Page?
THE WITNESS: From page 30 on.
MS. O'DELL: Okay.
THE WITNESS: Let me explain. Let me answer your question about the enzymes. So now we did -- these are the cells. We treated the cells, okay, with the 5, 20 and a hundred, okay. And then we took some of the media, we took some of the cells for RNA extraction to do PCR, we took some from the cells for -- to isolate protein to do ELISA, and some for DNA to do the genetic testing.
BY MR. HEGARTY:
Q. Okay.
A. So it's the same exact sample ID, same exact lot, because that's the way -- the proper way to do these kind of experiments. You have to start from one cell line -- from one lot of cells, sorry, and then go from there. So same cells, we isolate RNA, isolate for PCR, protein for enzyme testing we call it, it's ELISA, and DNA for genetic testing.
Q. If you look at page 21 of the same part of the notebook we've been talking about --
A. Yes.
Q. -- there are tests at the bottom dated

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February 26th, 2018 with 5, 20 and a hundred and zero that are numbered 3 -- 383, 384, 385 and 386. Do you see that?
A. Um-hum.
Q. If you turn to the next two pages --
A. 383.
Q. -- those pages are dated 2-15 -- 2-5 and 2-16 and list data -- RNA extraction data for 383, 384, 385 and 386, but you're showing the seeding of cells on the 26th. How can you have data generated on the 5th and 16th for cells you seeded on the 26th?
A. This is 2-26. That's 283, 284, 260, yeah. This could be from a different lot. So because we -- we get -- we always treat cells and get more cells if we need RNA. So this could be from a different lot. So this is normal ovarian epithelial cells, but they're very hard to grow. You need to grow more of them to get the same amount of RNA.
Q. So where are then the treatments of 383, 384, 385 and 386 that are reported on 22 and 23?
A. This one here?
Q. Yes. You report data on 2-5 and 2-16 on pages 22 and 23 for samples 383 through 386, but where are the --

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A. Yeah.
Q. -- seeding -- where is the seeding data and the data for those four samples?
A. There is no seeding data. This is just to get more of it. We have retreated the same time with the other cells, but this is an additional treatment to get more cells --
Q. Understood.
A. -- more RNA. But we didn't use this for isolating the RNA from here.
Q. But where did 383 to 386 come from?
A. They were treated with the same cells.
Q. But you --
MS. O'DELL: On what page?
BY MR. HEGARTY:
Q. The page you're pointing to, page 20, has crossed out 383 to 386, and it covers different cells on that page --
A. No --
Q. Let me finish -- SKOV A2780.
A. Can I answer?
Q. Sure.
A. Okay. If you look at page 20, see normal ovarian?
Q. Yes.

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A. 383, 384, 385, that answers your question, right? They are treated with the same. This is just additional, extra --
Q. Okay.
A. -- to get more cells.
Q. So where -- where are the tests for the ones that are reported on 2-26?
A. We didn't need to do it. We have -- we have done here. We did it. We're done.
Q. Well, why did you do it again on 2-26?
A. We need more. We always need more.
Q. But did you test those?
A. The new ones that we did?
Q. Correct.
A. No.
Q. Why not?
A. We didn't need to. We had -- we had enough RNA, and we proceeded.
Q. Well, you had enough RNA as reported on 2-5 and 2-16. Why then did you decide on 2-26 to do the cells again?
A. Hold on one second, please.
MS. O'DELL: Object to form.
THE WITNESS: I'm not understanding what you're really asking me now.

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BY MR. HEGARTY:
Q. Well, you --
A. Where are you looking?
Q. Let me finish my question. You said you ran the tests for normal epithelial cells, as you pointed to on page 20, 383 to 386, that you say correspond to the data on those two pages, on pages 22 and 23, correct?
A. Yes.
Q. Those pages are -- have dates on them of the data runs of 2-5 and 2-16, correct?
A. Correct.
Q. So you've got data that you can use?
A. Um-hum.
Q. Then why did you need to run additional cells on 2-26, if you already had data that you could use?
A. I answered.
MS. O'DELL: Object to the form.
BY MR. HEGARTY:
Q. Tell me again.
A. Okay. Normal ovarian epithelial cells, they are very slow-growing cells, and every time we work with them, we -- because cancer cells grow so fast, these grow very slow, so every time we do experiments

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with normal epithelial cells, we back up. We have -- we wake up some more cells just in case something happens, so we can use them. Does that make sense?

Q. Yes. And going back to page 20, why, though, do you have numbers 383 through 386, but then you also have crossed through data with regard to the 5, 20 and a hundred? Doesn't that appear that these test results weren't done --

MS. O'DELL: Object to the form.

BY MR. HEGARTY:

Q. -- or these tests weren't done?

A. I answered you.

Q. Why do you have lines through the 5, 20 and 100?

A. Here?

Q. Here.

A. Okay.

MR. LAPINSKI: When you say here, you're referring to page 20?

THE WITNESS: On page 20. So they were missed, -- they were -- see the numbers are different? We crossed them. We give them the right -- the corresponding correct numbers.

BY MR. HEGARTY:

Q. Okay.

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A. And this is my handwriting. I crossed that.

Q. So you do have -- do you have other handwriting in this part of the notebook of yours?

A. This is Nicole, and this is me.

Q. You're on the right side of page 20?

A. Right side, this is me. I crossed this, and I put the numbers.

Q. And you're pointing on the -- to the ride side of page 20?

A. Correct. The 383, 384, 385, 386 where it says okay, that's me. Yeah. So my answer about these cells, that the -- because they're slow growing, they're very, very slow growing, everybody knows this, we -- we always -- when we do experiments with them, we back up. So we add -- we seed more just in case, so we don't have to wait another three, four weeks.

Q. Would you look at page 13 of that same part of the notebook, please?

A. Show me, please.

Q. Dated 1-12-18 at the top.

A. Yeah.

Q. It says at the top, protein levels for CA-125 assay, correct?

A. Yes.

Q. At the very bottom of that notebook, it says

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that other proteins and media may be interfering tri-lysate. What does that mean?

A. This is an ELISA assay to determine CA-125 levels. So when you determine -- CA-125 is a protein that is made by the cell inside the cells, and also secreted outside the cells.

So when -- we try to do to determine in the media first how much we have there in the media, and if -- also we wanted to determine how much they are in the lysate inside the cell. That's what I meant by this. Lysate means inside the cell. Media means outside the cell.

Q. When it says other the proteins and media may be interfering, what is that referring to?

A. May be interfering, maybe. We don't know. So we're just assuming that, so that's why we run both.

Q. You report on this same page using a thousand micrograms per milliliter of talc in this experiment --

A. Correct.

Q. -- is that correct?

A. Correct.

Q. But again, you reported, again, we noted a moment ago that a thousand was killing the cells, correct?

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A. No.

MS. O'DELL: Object to the form.

THE WITNESS: No.

MS. O'DELL: That's not what he said.

THE WITNESS: That's not what I said. Thank you.

BY MR. HEGARTY:

Q. What did you say?

A. I said we could not get RNA from the treatment of the thousand. We got media in cells, the lysate. There's something -- I need to explain this. Do you want me to?

Q. Which part do you want to explain?

A. The mixup between the lysate, the media, RNA versus protein versus enzymes. There's like really a mixup here.

Q. Really a what?

A. Mixup. Mixup. We're mixing it.

Q. When you say mixup, what do you mean?

A. It means you refer to treatment with a thousand, with -- for RNA to the same treatment with a thousand for the media collected from cells.

Q. Okay. We'll -- we'll come back --

A. Okay.

Q. -- to your explanation if we need to.
A. If you need to.
Q. If you look over on page 19 of this same part of the notebook. Tell me when you're there, page 19.
A. Oh.
Q. I think you're on page 20.
A. Sorry. Dated January 29?
Q. At the top.
A. Yes, thank you.
Q. At the bottom, there's a date of January 31, 2018. It says, the presence of 1,000 micrograms per milliliter is physically killing the cells. We need to decrease dose. First of all, whose handwriting is that?
A. That's Nicole.
Q. So I just asked you a moment ago about your use of a thousand micrograms per milliliter for the CA-125 test results. So how can you get valid test results for CA-125 when -- for a thousand micrograms per milliliters of -- of dose, when the dose is physically killing the cells?
A. Yes. So it's physically killing the cells. It doesn't mean it's killing all cells in the media. It's killing part of the cells, not the whole

cells. So we still got media, we still got protein out of it.
Q. But how do you know that the -- the results of the tests are not affected by the toxicity of the dose to the cells?
A. Good question.
MS. O'DELL: Object to the form.
THE WITNESS: Good question. That's why we repeated this in here.
MS. O'DELL: Refer to the page.
THE WITNESS: So we -- we -- this was just a pilot experiment, as I indicated, and that's why we repeated it in detail here. If you go to ELISA section here, and you can here under the ELISA section there's a CA-125 with the new doses, 5, 20 and a hundred. It's right here.
MS. O'DELL: What pages are you referring to?
THE WITNESS: I will tell you in one second. It is page 63. It's called CA-125 ELISA.
BY MR. HEGARTY:
Q. I understand that you -- why did you go from -- why did you go from a thousand to a hundred?
A. Because, as I told you, physically it was affecting the cells. So we don't want to stress the

cells, so that's we went and titrated down to the lowest dose, which is 5, 20 and a hundred. And for CA-125, I believe we did that.
Q. Nicole wrote on 1-31-18 on that page 19 that we need to decrease dose. Why did she say we need to decrease dose, if you know?
A. Because it is physically killing some of the cells or most of the cells.
Q. Is it your testimony that the data for CA-125 run with a thousand micrograms per milliliter is still valid data?
A. Yes.
MS. O'DELL: Object to form.
THE WITNESS: Yes.
BY MR. HEGARTY:
Q. Even though the data came from tests where the dose was physically killing the cells?
A. Yes, part of the cells.
Q. How are you able to know that it was only part of the cells and not all of the cells?
A. We can see it under the microscope. This is the exact same reason how she determined physically killing the cells. So you look at them.
Q. If you look at the --
A. And also, if I may add, we confirmed it with

the lower dose, and we got similar effects. So that's why we believe it is a valid data.
Q. If you turn over to page 15 of that same part of the notebook, at the very bottom there's a statement that says, lysate protein measurements may be affected by talc. Whose handwriting is that?
A. Nicole.
Q. What does that mean?
A. It means the yield of the protein, how much protein you get from cells isolated from talc. So when you treat cells with talc, the protein yield that you get, that's why we do a normalization, is affected because there is a differential expression of genes. Something is going on.
Q. If you look at the very end of that first exhibit. It's page 24 of that -- of the part of the notebook we've been looking at, page 24.
A. This is here. This belongs -- this is not right. This is here.
Q. No, this is a -- we're look at something different.
A. Oh, sorry.
Q. Go to page 24 of the part of the notebook we've been looking at?
A. 24. This here?

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Q. Correct.
A. Yeah, this is here.
Q. Okay. You're saying the data that you're pointing to on 24 is in the --
A. This --
Q. -- poster?
A. -- this mistakenly put here. It should be here. This is in the poster. It's exact identical data.
MS. O'DELL: Just what you're saying that the data --
THE WITNESS: 24 page here is 62, 63 here.
MS. O'DELL: Of Exhibit 3?
THE WITNESS: Of Exhibit 3.
MS. O'DELL: Okay.
THE WITNESS: It's mistakenly put here.
BY MR. HEGARTY:
Q. Where is the data for the 20, 100 and a thousand for all of the charts that you have on the back?
A. It's here. It's all here.
Q. In which notebook?
A. It's -- this is 3, and it starts from page

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38 all the way down.
Q. Why is the 5 microgram per milliliter data not reported?
A. Oh. Okay, sorry. This is the first experiment we did long time ago. We did it with a hundred -- with 20, and a hundred, and a thousand. This is for the first experiment that we did, and we were actually surprised to see the effect. So that's the whole idea of this experiment. That's why we reported this.
We didn't even look what goes up, what goes down. We -- we just -- the fact that there was a biological effect upon talc treatment was very intriguing to us. This was done September through October of 2017.
Q. If we go -- if you look again, page 22 and 23 from that same part of the notebook we've been looking at.
MS. O'DELL: Exhibit 23.
THE WITNESS: Here?
MR. HEGARTY: Yes.
BY MR. HEGARTY:
Q. There you list RNA data and CDNA data, correct?
A. CDNA data?

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Q. Well, it says CDNA at the top of page 23.
A. That's -- that's -- yeah, that's not -- CDNA was not done for this one.
Q. That was going to be my next question. What data was -- what other tests were done with the samples that we talked through on page 20 of the 5, 20 and a hundred?
A. Okay. PCR data, no PCR data. We haven't done anything PCR here from these data.
Q. Did you do anything with those data?
A. Those data, let's see. Those data are the same. I'm sorry. Sorry. I take that back. I misunderstood the question. Okay.
MS. O'DELL: Why don't you repeat the question?
THE WITNESS: Yeah, please, please, because I'm confused going back and forth, so sorry.
BY MR. HEGARTY:
Q. Well, I'm looking for --
A. Sorry.
Q. -- any other tests that you ran with these samples.
A. What samples?
Q. Samples --
A. 356?

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Q. 5 through 20 -- 5, 20 and a hundred on page 20.
A. 356, 357, all that?
Q. Correct.
A. The whole manuscript is all about that. I was thinking of the other one, I'm sorry.
Q. So the samples that you list in the first part of the notebook were carried over to the next part of the notebook?
A. This is exactly the same as here. We just rewrote it to make it clear. That's -- I said that already. It's exact same treatment, exact same thing.
MS. O'DELL: And you refer -- excuse me, I'm sorry. If he refers to the pages, so --
THE WITNESS: On 20, page 20, the cell treatment and the ID number is carried over here, and clearly written in -- on page 32 for the record.
BY MR. HEGARTY:
Q. In that poster, though, you don't report on any 5 microgram data, correct?
A. Correct.
Q. Why not?
A. Because I told you, this was -- okay, one more time. This work was the initial experiment that we did to see if there is an effect of talcum powder on

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cells.
MS. O'DELL: And you referred to Exhibit 3, page --
THE WITNESS: Yes. I don't know.
MS. O'DELL: Yeah. This --
MR. HEGARTY: Okay.
THE WITNESS: You keep mixing me up, so --
BY MR. HEGARTY:
Q. All right. I think I'm following you now, okay.
A. Okay.
Q. On --
MS. O'DELL: Excuse me. I'm sorry, Mark. Were you finished? So you were referring to exhibit --
THE WITNESS: Yeah. So this -- this poster was done from the initial observation on this, all that's in Exhibit 3.
BY MR. HEGARTY:
Q. Okay.
A. Okay. And this is data dated from September to October, okay?
MS. O'DELL: 2017.
THE WITNESS: 2017, okay. At that

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time, we did 20, a hundred, and a thousand, at that time. And so now we repeated this in February of '18.
MS. O'DELL: 2018?
THE WITNESS: This is when -- 2018. And this is when we did the 5, the 20, and a hundred.
BY MR. HEGARTY:
Q. You list in this poster results for a thousand micrograms per milliliter?
A. Correct.
Q. Again, how are you able to verify that that's valid data, when you reported in your study lab book that a thousand micrograms per milliliter was killing the cells?
MS. O'DELL: Object to form.
THE WITNESS: Okay. I just answered this.
MS. O'DELL: Repeat your answer --
THE WITNESS: Physically killing some cells, that doesn't mean you cannot get RNA, you cannot get to do the assay. That doesn't -- it's not the optimal condition, but you still can do the experiment, okay. And to confirm that, when we did it with the lower dose, we got the results.
BY MR. HEGARTY:
Q. In the same chart we're looking at, you do

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something called supernatant?
A. Supernatant.
Q. Supernatant. What is that?
A. It's the media of the cells.
Q. Why do you run tests on be the media?
A. Because you want to see if there is an effect on -- which one is this? Oh, I'm sorry. Hold on one second. Supernatant.
MS. O'DELL: I'm sorry. Just to clarify, Dr. Saed, you're looking at the 2017 poster?
THE WITNESS: I'm sorry. Yeah, thank you for reminding me.
MS. O'DELL: Are you asking -- I understood the question to correspond to the 2018 experiments, but --
THE WITNESS: Okay. Let me answer this. So supernatant is when you dissolve the talc powder with DMSO, the solvent, you have two phases, media, like soluble phase, and the talcum particles, correct. So we wanted to see if there is -- if there is an effect from the supernatant without the particles. That's all.
BY MR. HEGARTY:
Q. Did you see any effect?
A. There is some effect.

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Q. What was the -- what was the reason for the effect?
A. Because we could not fully isolate the particles from the supernatant. So that's why we believe the effect comes from the particles.
Q. When you say the effect comes from the particles, what do you mean?
A. The -- the talcum particles.
Q. And what effect are you talking about?
A. The effect we see here, the changing -- the changing oxidative stress markers, the effect that we observe in the -- that we report in the poster?
MS. O'DELL: Just for the record, the poster as contained in Exhibit 3 at pages 60 -- what are the pages in the notebook that are at issue?
THE WITNESS: 38 to 68.
MS. O'DELL: Okay. Thank you.
BY MR. HEGARTY:
Q. If you look at the very first page, the index of the part of the notebook we've been looking at?
A. This?
Q. Exhibit 2.
A. Yep.
Q. Do you see in the middle of that page a date

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of January 7, 2018 for protein extraction samples?
A. Um-hum.
Q. Do you see that?
A. Yes.
Q. Then if you turn over to page 20 of that same part of the notebook --
A. Um-hum.
Q. -- this shows that you're seeding the cells and treating the cells on February 1st, 2018. How can you do protein extraction on January 1st when you're not doing the tests until February 1st?
MS. O'DELL: Exhibit 1.
THE WITNESS: Let's see. 53. Where is 53. Okay. Yeah. Good question. So if you go to page -- it says here go to page 53, okay.
BY MR. HEGARTY:
Q. Right.
A. And again, we're mixing up between two things, okay. I'm sorry, can I say it again?
MS. O'DELL: Explain it in detail --
THE WITNESS: Yeah, yeah.
MS. O'DELL: -- so the record is clear, please.
THE WITNESS: This -- this -- go to page 53, please.

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BY MR. HEGARTY:
Q. Okay, I'm there.
A. Okay. This is for ELISA for protein extraction. That for MRNA. That's why we have -- the book is not in chronological order, and we label each section, and we left pages so we can write it, fill it in. That's why. You see different two assays. This is protein, ELISA enzymes, and this is RNA.
Q. Okay.
DEPOSITION EXHIBIT 24
Lab Notebook
WAS MARKED BY THE REPORTER
FOR IDENTIFICATION
BY MR. HEGARTY:
Q. We're going to look at the second -- next notebook for a bit, Doctor. I'm marking as Exhibit 24 a copy of the other notebook that we were provided, Number 3.
MS. O'DELL: Exhibit 3?
MR. HEGARTY: Exhibit 3, yeah.
MS. O'DELL: What number did you mark the -- the new exhibit? Exhibit 24?
THE WITNESS: 24.
MS. O'DELL: Okay.
THE WITNESS: This one.

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BY MR. HEGARTY:
Q. This was the notebook that you brought to the deposition the last time, correct?
A. Correct.
Q. You said this was your first study involving Fisher talc where you exposed three ovarian cell lines and macrophages of epithelial cells and presented the work for the poster to the SRI, correct?
A. Yes. Just to clarify, macrophages and ovarian epithelial.
Q. Do you see pages -- the first few pages of this part -- this part of the notebook, there are several dates that are whited out and written over. Do you see those dates?
A. Where?
Q. For example, on 9-26, the very first date, 9-26-2017, there's whiteout there in the left-hand corner?
A. Yeah.
Q. Look over on the next -- the page before.
A. (Gesturing).
Q. Correct. You're pointing to -- what -- what page number is that at the bottom?
A. 38.
Q. There is a whiting out, and written over the

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whiteout is 26-2017. Do you see that?
A. Yes.
Q. Why is that?
A. No idea.
Q. Then if you look down, there's also a whiteout over 9 -- whiteout in 9-29-2017 is written over. Do you see that?
MS. O'DELL: What page are you on there?
THE WITNESS: Yes.
MR. HEGARTY: We're on page 38.
BY MR. HEGARTY:
Q. Do you know, why is that whited out?
A. No idea. A mistake.
MS. O'DELL: And Doctor, if you can identify the wording under the whiteout, don't guess, but --
THE WITNESS: Sometimes you can, sometimes you cannot. It says, for example, page 38, the whiteout says biologic.
BY MR. HEGARTY:
Q. Can you --
A. This is like procedure. It's like methods. It's not even data, nothing to do with data.
Q. On the dates that we just talked about, can

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you tell from the original notebook what -- what the date was that or the dates were that were whited out?
A. I can't tell.
MS. O'DELL: Object to the form.
THE WITNESS: I cannot tell.
BY MR. HEGARTY:
Q. Okay. Turn over to page 51, please.
A. iNOS.
Q. Are you there, Doctor?
A. iNOS, yes.
MS. O'DELL: When you say iNOS --
THE WITNESS: iNOS, the molecule.
MS. O'DELL: How do you spell that?
THE WITNESS: I, and then NOS, N-O-S.
MS. O'DELL: Okay.
BY MR. HEGARTY:
Q. If you look under the -- in the table where it says SKOV dash 3 cells?
A. Yes, SKOV.
Q. You're on the wrong page.
A. Oh, sorry. Yes. SKOV control.
Q. Yeah, there's a control for 20 micrograms per milliliter talc, and then also a listed control for 100 microgram per milliliter talc. Do you see that?

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A. Yes.
Q. Wasn't there only one control for each cell line?
A. For this experiment?
Q. Yes.
A. No, there wasn't.
Q. You had one set of control cells for each dose?
A. Correct.
Q. Does the notebook report the treating of the controls for each of the cell lines?
A. What notebook?
Q. The notebook we're looking at.
A. Yeah. It says right there, 20 microgram control, hundred microgram control, 20 microgram treatment, hundred microgram treatment.
Q. Does it report the treatment of controls anywhere besides in the -- in the chart? In other words, is it reported elsewhere in the notebook?
A. I don't remember.
MS. O'DELL: For which finding?
THE WITNESS: I don't remember for what month are you referring to.
BY MR. HEGARTY:
Q. I'm referring to the SKOV dash 3 cells.

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A. For iNOS?
Q. Yes.
A. Yes, whatever is written here. It is reported 20 control and a hundred control for this, and you want to see if it's done for another molecule, like GPX1, for example?
Q. No, not right now.
A. Okay.
Q. Not right now. You did not do the -- a 5 microgram per milliliter sample here?
A. Oh, my God. Okay. No, I did not.
Q. Okay. You're still doing a thousand micrograms per milliliter test with this part -- this test, correct?
A. I did 20, a hundred, and a thousand.
Q. Please go to page 53.
A. GPX?
Q. I'm sorry, go to page 52 first.
A. Still GPX.
Q. Are you at page 52?
A. Um-hum.
Q. It says, in the chart that has data at the top, normal ovarian OV epithelial control for 20, then it says 100. What does that mean?
A. So this is normal ovarian for a thousand,

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normal -- oh. Yes, I think she did the control for 20 and a hundred at one time.
Q. How can you do a control for 20 and a hundred at the same time?
A. Because they're very close doses, so we don't -- as you just said to me, you really didn't need to do more than one control, but because the doses are big, there's a huge difference in the dose, like between 20, a hundred, and a thousand, there's a huge difference, that's why we have control for both. But for 20 and a hundred, we found from here, from the other previous studies that they -- we didn't need to do it, so she didn't do it.
Q. But isn't there -- okay, I see. So you think that for purposes of this test, that the control for the 20 and the 100 was the same control, one control for both of those?
A. Correct. Will serve for both, yes.
Q. Do you know which dose she applied to the control? Was it 20 or a hundred?
A. No, the control, you don't apply those.
Q. Well, do you apply the DMSO?
A. Yes.
Q. At what volume?
A. Same volume like you use for treatment.

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Q. I gotcha.
A. Thank you.
Q. Go to page 53 now, please.
A. Okay.
Q. If you go down to the table where you're reporting on A2780 cells --
A. Yes.
Q. -- particularly the 1,000 microgram per milliliter talc, do you see that part of the table?
A. I do.
Q. The p-value noted there is .291, correct?
A. Yes, correct.
Q. That's not statistically significant, correct?
A. Correct.
Q. That's for GPX1, right?
A. Correct.
Q. Go back to the -- then, your poster --
A. Okay.
Q. -- for this experiment.
A. Okay. GP -- GPX1.
Q. If you look at the GPX1 --
A. A2780.
Q. -- it's in the right hand -- on the right-hand side, the middle graph, correct?

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A. Yes.
Q. For the 1,000 dose average for the A2780, don't you list that as being statistically significant?
A. Let me look. So this -- which color would be this? That's the purple color. That's comparing -- comparing to this purple color. Okay. So this is comparing it to the 20 dose. Yeah, you see -- okay. So this -- this --
MS. O'DELL: What are you referring to?
BY MR. HEGARTY:
Q. The p-value?
A. The p-value here is comparing the thousand to its control. The p-value here, if you see the asterisk, it's comparing it to the treatment, to the 20 microgram treatment, I believe. I'm not sure.
Q. But doesn't the --
A. Yes.
Q. -- description -- doesn't the description under the -- the graph say it's comparing to --
A. Let me see.
Q. -- to controls?
A. Versus control, you're right, so yeah, that's statistically significant. That wasn't -- okay.
Q. Why do you list in that -- in that graph

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that it is statistically significant, when the p-value from the data we're looking at is .291?
A. So maybe the asterisk -- again, this -- this is PowerPoint, and the asterisk can be shifted easily, so if -- we're not hiding it. This is the data, .29. Anybody knows it's not statistically significant, and so maybe these asterisks were shifted or something. I cannot tell you, but the data is right here. The data is in front of you.
Q. But the data is not included in your poster, correct?
A. Correct.
Q. So anyone looking at the poster would not have access to the data we're looking at on page 53, correct?
MS. O'DELL: Object to the form.
THE WITNESS: They don't have the data, yes, but they can ask.
BY MR. HEGARTY:
Q. Turn over to page 55 of that part of the notebook, please.
A. 55.
Q. We're again looking at the data for SOD3, and in particular the A2780 cells. Do you see for the 100 microgram and 1,000 microgram treatments that your

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p-values are above .05? They're .1692 and .1029? Do you see that, Doctor?
A. Yes.
Q. And if you turn back to the poster and look at SOD3 on the left-hand side, the third graph down, for the 2780 for the hundred and the thousand -- I'm sorry, it's the fourth -- fourth graph down, for the hundred and the thousand, you're reporting those to be statistically significant at a p-value of less than .05, correct?
MS. O'DELL: Do you need -- if you need to see that -- the poster in larger, if it's difficult to read, i -- f you can read it, fine, great.
THE WITNESS: Yeah.
MS. O'DELL: If you cannot, then I'll provide it to you electronically.
THE WITNESS: What I am concerned about -- I have a concern here. So what I'm concerned about, that these asterisks were shifted, so -- but the data is what we go with. I'm not -- I'm not really sure. I mean, I wouldn't say significant if the data say it's not significant, okay.
BY MR. HEGARTY:
Q. At least the -- on 55, page 55, it shows the data are not statistically significant, correct?

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A. Not correct. Not all of them.
Q. Well, I'm sorry. Fair point.
A. Yeah.
Q. The ones we looked at --
A. Yes.
Q. -- the 2780 for a hundred and the 2780 for a thousand are not statistically significant?
A. For this specific mark, yes.
Q. Correct, okay.
A. Yeah. So I'm concerned about this maybe shifted or something. I don't know what the answer is.
Q. The poster that we've been looking at, was this a poster that you presented at SRI?
A. SRI.
Q. The SRI meeting in March?
A. March --
MS. O'DELL: 2017?
THE WITNESS: -- 2017?
BY MR. HEGARTY:
Q. Yes.
A. No.
Q. March 2018?
A. 2018.
MS. O'DELL: 2018, excuse me.
THE WITNESS: March 2018.

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BY MR. HEGARTY:
Q. Was there an abstract that went along with that?
A. I don't understand your question.
Q. Well, you have a poster there, correct?
A. Yes.
Q. Was there an abstract that was published for the meeting that went along with the poster?
A. Yeah. You submit an abstract first to the meeting, and then they accept it, and then they publish it, yes.
DEPOSITION EXHIBIT 25
Abstract for March 2018 SRI Meeting
WAS MARKED BY THE REPORTER
FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I'm marking Exhibit 25, which was what we also looked at last time. Is Exhibit 25 the abstract for the March 2018 SRI meeting?
A. Yeah, but that's for a different. That's for CA-125.
Q. Exactly.
A. Oh, you're done with this?
Q. NO. I'm trying to find the -- I'm trying to find where the abstract is that you prepared for the

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poster that we're looking at right now, and I don't know where it is.
A. Okay.
Q. The only abstract I could find for March 2018 to SRI was 25.
A. That was the breaking -- late-breaking abstract, CA-125, but there is an abstract for this.
Q. And -- okay. We'll come back once we look through your documents to see if we can find the abstract that corresponds to that.
A. So when you say you didn't find it, you didn't find it online?
Q. I did not find it in the documents that have been produced, or at least I -- I overlooked it. And we'll go through all the abstracts to make sure that I'm --
MS. O'DELL: I think you --
BY MR. HEGARTY:
Q. -- incorrect or correct.
MS. O'DELL: It was produced in the documents that were provided to you.
MR. HEGARTY: Which one are you referring to that you think corresponds with that?
MS. O'DELL: Let me ask Dr. Saed, is that the abstract that corresponds with the poster?

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You might not --
THE WITNESS: Talcum powder enhanced oxidase -- yes.
MS. O'DELL: And it's the -- it was labeled Saed Lecture 2018A, Oxidative Stress.
BY MR. HEGARTY:
Q. And I'll tell you the reason that I didn't connect this abstract with that poster is because this abstract describes cells treated for -- with 0, 200 and 500.
A. This abstract is from 0, 200 and 500. And this is 0, 200, 500. I don't remember. I don't remember this.
MS. O'DELL: I'll take it back, Doctor, if it's not the same.
THE WITNESS: Yeah, I don't -- I don't remember. It's different maybe. I don't know what it is.
BY MR. HEGARTY:
Q. When we're finished walking through your documents --
A. Yes.
Q. -- we'll see if we came across an abstract that corresponds to that poster.
A. Yeah.

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Q. Stay with this poster for a little bit longer.
A. Oh.
Q. Go back to it, please. Would you look at the Results section, please, Doctor?
A. Of the abstract?
Q. Of the poster.
A. Sorry.
Q. Do you see the results in the lower left-hand corner?
A. The conclusion you're talking about?
Q. No, the Results section?
A. Oh, I'm sorry, yes, here.
Q. The Results section says there was a marked increase in MRNA levels of the pro-oxidant enzymes iNOS and MPO in talc-treated ovarian cancer cell line macrophages in normal ovarian epithelial cells, all as compared to their controls. Then it cites the figure.
A. Um-hum.
Q. Additionally, there was a marked increase in the MRNA levels of the anti-oxidant enzymes CAT, SOD3, GSR, GPX1 and GS1P1, in talc-treated ovarian cancer treated cells in normal ovarian epithelial cells, as all compared to their controls, correct?
A. That's what it says.

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Q. So in this experiment, you show that both pro and anti-oxidants had a marked increase, correct?
A. Let me check this. Hold on one second. So iNOS increased, MPO increased, GPX goes down, SOD3 goes up, GSR goes up. Some goes up. Catalase goes up. Yes.
Q. But in your manuscript, you reported an increase in pro-oxidant enzymes and a decrease in the anti-oxidant enzymes. It seems that at least some of your results from your -- in your later manuscript and your report are different than what you're reporting here.
MS. O'DELL: Object to form.
BY MR. HEGARTY:
Q. Is that correct?
A. Okay. So this is done only with PCR. The manuscript was done extensively with PCR, and usually PCR data has to be complemented with the enzyme data, okay. In science, this is a common practice. PCR data is preliminary. It's an indication.
If you don't complement it with protein and MRNA and protein ELISA activity, it is not very accurate. So we here objective, this was -- the intriguing results from this poster was to see whether or not there is any biological effect in use by the

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talcum powder. And we only did PCR here. This is very preliminary.
Q. Okay.
A. That's why we repeated -- this is why we repeated the whole study with the tri-purses (ph), and we extensively did the enzymes, the ELISAs, everything.
Q. Do you have a copy of your manuscript there, Doctor, the one for Reproductive Sciences?
A. Do I have a copy of that?
Q. I'll show you. It's been marked previously as Exhibit 7. That's your manuscript to Reproductive Sciences, correct?
MS. O'DELL: What's the date on it?
THE WITNESS: January 3rd, yes.
MS. O'DELL: Okay.
BY MR. HEGARTY:
Q. Turn over to page seven of Exhibit 7, please.
A. Exhibit 7, page seven. Okay.
Q. About three-fourths of the way down, you're reporting on anti-oxidant enzymes GPX and GSR for both PCR and ELISA assays, correct?
A. Correct.
Q. You report there that GPX and GSR were significantly decreased in response to talc treatment

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under both PCR and ELISA assays, correct?
A. Correct.
Q. That's opposite of what you reported in your abstract, correct?
A. Not correct.
Q. Well, your abstract said that you reported a marked increase in the MRNA levels of anti-oxidant enzymes that include GSR and GPX1. How is that not the exact opposite?
MS. O'DELL: You're referring to the poster, not an abstract?
MR. HEGARTY: Yes, the poster.
THE WITNESS: Let me explain, please. So this is done, number one --
BY MR. HEGARTY:
Q. Here. You're referring to the poster?
A. The poster is done with the Fisher powder. That's number one. This is done with a different dose. Here, this is done with -- this is a very preliminary, just to see if there is a biological effect.
After we saw there is a biological effect, we did a comprehensive design of a study where we do 5, 20, a hundred doses for the right time, complemented with protein assays, ELISAs and etceteras. So that's my response.

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MS. O'DELL: And you're referring to the manuscript?
THE WITNESS: The manuscript.
BY MR. HEGARTY:
Q. Do you remember me -- strike that. Do you remember us just looking at an abstract that talked about results from dosages of talc of 0, 200 and 500? Do you remember looking at that abstract?
MS. O'DELL: What are you referring to?
MR. HEGARTY: Well, the abstract you handed him. I'll show it to you. I'll mark it as --
MS. O'DELL: Are you referring him back to his deposition previously?
MR. HEGARTY: No, the one we just --
THE WITNESS: Yeah. This --
MR. HEGARTY: Let me ask a question.
MS. O'DELL: I'm sorry.
DEPOSITION EXHIBIT 26
F-098 Abstract
WAS MARKED BY THE REPORTER
FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I'm marking for purposes of the deposition Exhibit 26, which was that F dash 098 abstract that

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counsel for Plaintiffs --
MS. O'DELL: Which one was marked?
MR. HEGARTY: It's the same one that you just had.
MS. O'DELL: Thank you.
BY MR. HEGARTY:
Q. Do you see Exhibit 26, Doctor?
A. Yes.
Q. Where in the note -- in any of the notebooks we've looked at are there tests -- test results for 0, 200 and 500 micrograms per milliliter of talc?
A. This is this.
Q. Where --
A. It's a typo.
Q. What's a typo?
A. The 200, 500. It's a hundred -- it's 20 and a hundred and a thousand. This abstract is this poster.
Q. You're saying that it should read --
A. Yes.
Q. -- 0, 20, and a hundred?
A. It should read -- it should read 0, 20, a hundred, and a thousand.
Q. 0, 20, a hundred, and a thousand --
A. Yeah.

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Q. -- and instead it reads 0, 200 and 500 micrograms per milliliter?
A. Per mil. This -- this is a -- this -- this abstract is this poster. So -- and I will -- I will double-check it, but I think it's a typo. This abstract is for the March meeting? Yes, so it is. It's gotta be a typo.
Q. Who does the proofreading of your abstracts, Doctor?
A. I do.
Q. And it's your testimony that you just missed the dosages? Instead of having 0, 20 and a hundred, and a thousand, you missed and listed it 0, 200 and 500?
A. Is that possible? It could be. I don't know.
Q. Is it your testimony that you did not run the same tests that you reported in your abstract and generated data for dosages at 200 and 500?
MS. O'DELL: Object to the form.
THE WITNESS: This is what I did. It's detailed here in the lab notebook, it's published in the poster. We are not hiding anything. The poster was viewed by everybody at SRI meeting, so there's nothing to hide here.

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BY MR. HEGARTY:
Q. And you're pointing to your poster?
A. The poster, yes. This is the final outcome of abstract.
MS. O'DELL: He was pointing -- he was pointing to the lab notebook and the data there.
THE WITNESS: Yeah. This is what displayed in the meeting, so people will see this with the abstract. They will find out it's a mistake.
BY MR. HEGARTY:
Q. Doctor, I want to ask you about Exhibit Number 1, which was the --
A. Go back here?
Q. -- the lab notebook, which is Exhibit Number 2. This is the portion of the notebook starting at page 30 going forward.
A. The manuscript?
Q. For the manuscript.
A. Yes.
Q. Although you did indicate that some of the tests were in the first 30 pages that were then carried forward, correct?
A. Just this part here, the 20.
Q. You're pointing to page 20?
A. Yes.

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Q. Can you identify in looking through the first several pages of this notebook, or throughout, whether there is any of your handwriting in this part of the notebook?
A. Any of my handwriting?
Q. Correct.
A. I don't remember, but I'm sure, if I see it. Particularly I don't do it, but -- I don't see in here anything here in my handwriting.
Q. Keep going.
A. Keep going. I can't say yet. What page you are looking for?
Q. I'm not looking at any particular page.
A. You want me to keep going?
Q. For example, if you look over at page 63.
A. 63?
Q. None of that is your handwriting on that page?
A. 63.
MS. O'DELL: And you're referring to --
THE WITNESS: This?
MS. O'DELL: -- page 63 as it was indicated in the lab notebook --
THE WITNESS: Show me, please.

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MR. HEGARTY: Correct, yeah.
THE WITNESS: Can you show me the page?
MS. O'DELL: -- Bates 35.
THE WITNESS: Yes, this, no, nothing -- I don't -- I don't have anything here.
BY MR. HEGARTY:
Q. Do you know whose handwriting that is?
A. That is either Florie or Ira.
Q. I'll come back if I --
A. I don't know. I don't know.
Q. I'll come back if I want you to look at it further.
A. Okay.
Q. If you go to Bates number SAED 5.
A. What page? What page?
Q. Okay. If you want to look at the original, but we're going to have to work from the handwritten notes.
A. Yeah, I like to look at the original, please.
Q. Okay. Go to -- it looks like 33, page 33.
A. Okay. The methodology.
Q. It should look like this.
A. The methodology, yeah. No. Hold on.

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Q. Yes, that page.
A. This? Okay.
Q. There looks to be some odd handwriting on that page. Do you know what that is? It looks like almost Chinese characters.
A. Yeah. This is a methodology. We just copy it.
Q. I'm talking about the characters that look like they're Chinese on that page.
A. Yeah.
Q. Do you see that?
A. Yeah. I don't read Chinese.
Q. Is that Chinese?
A. I don't know. I really don't know. But let me explain something, please, so I make you comfortable with this. This is a methodology page. This just describing the method. We copy it from -- you know, once we do RNA extraction, this is indicate what kit we use, what number, and, you know, the most important things.
Q. Understood.
A. But I don't know what that means.
Q. My question only was -- only concerned if you could interpret that dark writing on that page.
A. I do not read Chinese. I can't read it.

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Q. Where in this part of the notebook are there totals for confluency?
A. One more time, please.
Q. Where in this notebook are there totals for confluency with regard to your cell tests?
A. Can you please explain the word total?
Q. Well, what does confluence mean?
A. Yeah, thank you.
Q. What does that mean?
A. Confluence, when cells reach their double timing of division. Like we always start with -- if we want to start with one million cells for an experiment, we go half, and then we leave it for couple of days when they double so we can do the experiment. So they confluence when they reach 90 percent filling the plates.
Q. Go over to page 31 of your notebook, please. At the bottom there a --
A. What --
Q. -- there's an entry dated 1-29-18.
A. Can you just show me where? 31?
Q. 31. It says 31 in the lower left-hand corner.
A. This one?
Q. Yes.

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A. Yeah.
Q. At the very bottom you say, 2 mil cells plus 8 mils medium 100, and then dish. Do you see that?
A. Um-hum.
Q. And then underneath that it says, cells doubled in one day.
A. Um-hum.
Q. Do you see that?
A. Um-hum.
Q. How long does it normally take for epithelial cells to double?
A. That's not a clear question. Are you talking about epithelial ovarian cancer cells?
Q. Well, let's talk about cancer cells first, and then normal cells.
A. Cancer cells, they double quick.
Q. How quick?
A. Very quickly, like next day.
Q. How about noncancerous cells, normal ovarian epithelial cell?
A. Normal ovarian epithelial take longer time.
Q. Approximately how much longer?
A. It depends on the lot. I think it's like a week to grow. They're very slow-growing cells. Like, for example, normal macrophages, they double quickly.

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Q. In your cell tests, did all of the cells that you tested double in one day?
MS. O'DELL: Object to the form.
THE WITNESS: I just told you.
BY MR. HEGARTY:
Q. Where is the data in the lab notebook that reports on the length of time it took for the cells to double?
A. That's from our past experience with these cells. We worked with these cells for 20 years.
Q. Why did someone then report, though, here that certain cells doubled in one day?
A. She wants to be extra good.
Q. Can you tell what cells she's talking about here?
A. The cancer cells, usually.
Q. Are the cells identified in this part of the notebook?
A. Except for the normal, yes.
Q. Well, I'm talking about the entry on 1-29-18 we've been looking at on page 31.
A. Here.
Q. Can you tell from the entry itself --
A. Oh.
Q. -- what cells she's referring to?

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MS. O'DELL: Object to the form.
THE WITNESS: She is referring to some of these cells here.
BY MR. HEGARTY:
Q. What are you pointing to?
A. On the top.
Q. How do you know she's -- you're talking about the top of the next page, page 32?
A. No, same page --
Q. Okay.
A. -- same page. Same page goal, total cells, macrophages KOV (ph), TOV, A2780, those cells. Now, what I'm saying is, this statement refers to the cancer cells, because cancer cells double in one day. We already know that.
Q. So you're assuming that's what she's talking about?
MS. O'DELL: Object to the form.
BY MR. HEGARTY:
Q. Correct?
A. I know what she's talking about.
Q. And whose handwriting is this?
A. That's Florie probably.
Q. Under the date 1-29-18 it says subculture cells. What does that mean?

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A. It means you split them.
Q. How do you measure cell doubling?
A. You start -- you count them. You start with half a million, next day you get one million, you use a hemocytometer, you measure them.
Q. What is the instrument you use?
A. Hemocytometer.
MS. O'DELL: Would you spell that, please?
THE WITNESS: I can't.
MS. O'DELL: Okay.
BY MR. HEGARTY:
Q. Do you record --
A. I can't, I can't.
Q. Do you record the readings you get from a hemocytometer?
A. You don't get reading. Okay. Here's what we do. We look at the cells. When you put half a million tells in 10 millimeter dish, they're like half full. You can look under the microscope, and you see half full.
We got experience because we -- we've worked with these cells for a very long time. And then the next day when you look at the same culture dish under the microscope, you'll see it all over the

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dish, so we -- we reach confluency, we can work with them.

You don't want to work with cells when they are spaced out because they don't like to be spaced out. They like to be simulate body where they attach, touch each other.

MR. HEGARTY: Let's take a short break, please. Thank you.

THE VIDEOGRAPHER: We're going off the record, the time is 10:00.

(There was a recess taken.)

THE VIDEOGRAPHER: We're back on the record at 10:23.

BY MR. HEGARTY:

Q. Dr. Saed, we're going to continue looking at what we marked as Exhibit Number 1, which is your notebook, Exhibit Number 2. If you turn to page 114 of that notebook, please.

A. Statistical section?

Q. Correct. That section is dated October 6th, 2018, correct?

A. Correct.

Q. Who was the statistician for your test results?

A. Steven. I forgot his last name. He

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works -- he works with us in the department.

Q. Is he listed as one of the authors of your manuscript?

A. No.

Q. You don't know his last name?

A. I can find out, but I don't know his last name. Steven Kolisky or something.

Q. Was the data sent to him in a blinded fashion?

A. This is how the data was sent to him.

Q. You're pointing to pages 115 through 124?

A. 115 -- yes, this is how -- this is how the data were.

MS. O'DELL: And just to be clear, what data are you referring to? What pages?

THE WITNESS: The data from PCR data 115 and 116, and then ELISA data 117, 118.

DEPOSITION EXHIBIT 27

Manuscript Submission to Journal of Gynecologic Oncology

WAS MARKED BY THE REPORTER FOR IDENTIFICATION

BY MR. HEGARTY:

Q. Doctor, we received as part of the materials produced to us last week what I'm marking as

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Exhibit Number 27, which was the -- which is the manuscript submission to the Journal of Gynecologic Oncology; is that correct?

A. Correct.

Q. That shows a submission date of August 22nd, 2018. There's a cover letter on about the second page or third page. Do you see that?

A. I do.

Q. That letter is dated August 26th, 2018; is that correct?

A. Yes. 22nd.

Q. August 22nd, 2018?

A. Yes.

Q. The statistical analysis we just looked at is dated October 6th, 2018, so how could you submit a manuscript on August 22nd, 2018 when the statistical analysis was not done until October 6th, 2018?

A. Good question. So for the Gynecology Oncology submission, we did not use the statistics from here. We just did it our -- the p-value, like what you noticed. We didn't -- we didn't submit a statistical -- professional statistician in the -- in the manuscript. Just -- it says here, if you look at the materials and method, we just did the simple p-value comparison test. That's all.

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Q. Do you describe the Finkel p-value comparison test in the manuscript?

A. I'm trying to look for it, if we did. It says -- oh, okay. No, I take that back, I'm sorry. I misspoke. Okay. So this -- this -- this date here when we put it in the notebook, that's not when the statistics were performed. I can't give you the exact date when the statistics were performed. I have to go back. I'm sorry, I misspoke. I have to go back and tell you exactly when we did the statistics. But here we describe the statistics that's done by this method from Steven.

Q. What page are you pointing to?

A. It's page seven. Yeah, this is done by statistician, so this is done by him.

Q. Right. The --

A. The data was done by him.

Q. Your statistical description in the manuscript submitted to the Gynecologic -- the Journal of Gynecologic Oncology is the same as in your manuscript?

A. Correct.

Q. So --

A. That's the date where we entered it in the book.

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Q. 10-6-18 is the date it was entered into the book?
A. Correct. I remember it now.
Q. What was the date the statistical analysis was done?
A. I can find out. I don't remember.
Q. Is there any way --
A. It's definitely different.
Q. -- or how can you find out?
A. I can go back and ask Steven. But it's definitely -- if we -- if we listed it in the OB/GYN Oncology submission, so it's definitely before that, but I cannot remember the exact date.
Q. Whose handwriting is -- is describing the statistical analysis?
A. This is --
MS. O'DELL: What page are you referring to, please?
THE WITNESS: This is page 114.
MR. HEGARTY: 114.
THE WITNESS: This is Florie.
BY MR. HEGARTY:
Q. Do you know when this --
A. This was --
Q. -- was added to the notebook? Was it added

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on 10-6-18, or added at another time and dated 10-6-18?
MS. O'DELL: Object to the form.
THE WITNESS: I'm not sure when we -- when we added this, but that was the last thing we added, I think.
BY MR. HEGARTY:
Q. And how were the p-values determined? By what comparison?
A. It states very clearly here in the statistical section, if you read it. It's very complicated statistical methods, because they are not normally distributed, so they had to use this method to -- there are a lot of comparison to do that, comparison between treated versus untreated, comparison between different doses, comparison between normal versus cancer. It's a lot of that.
Q. That was my question, is to what -- what different samples are you doing the comparisons across?
A. So all comparisons were statistically significant. We were particularly interested between control and treatment.
Q. So it's your understanding that the p-values compared talc untreated -- compared the untreated controls to the treated controls?
A. Okay.

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MS. O'DELL: Objection to the form.
THE WITNESS: Okay. If you read here, if you go to the Results section of the manuscript, now, each -- each section of the results shows what the comparison were and what the actual p-value is for that comparison.
BY MR. HEGARTY:
Q. Okay. Why was DMSO selected as a dilutant for talc? Why that particular material?
MS. O'DELL: Object to the form.
THE WITNESS: Yeah, the question is not clear. I don't understand what you mean by --
BY MR. HEGARTY:
Q. Well, were there -- were there alternatives to DMSO?
A. Were they -- to dissolve talc?
Q. Correct.
A. We got this from the other papers where they used the -- let me -- let me try to remember. I don't know if they were alternatives, but we used this DMSO always in our lab to dissolve organic things, nonporous stuff.
Q. Some of your assays rely on optical density measurements, correct?
A. Correct.

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Q. That includes PCR and ELISA, correct?
A. ELISA you mean?
Q. ELISA.
A. I'm not sure about PCR, what are you referring to, colorimetric?
Q. Well, do you understand --
A. I'm confused now.
Q. Do you know whether PCR testing relies on optical density measurements?
A. Absolutely not.
Q. How about ELISA?
A. Correct, some of the ELISA are colorimetric, is that what you're asking?
Q. Well, I'm talking about optical density measurements.
A. Yeah, it's colorimetric.
Q. What is the principle behind optical density assays; that is, what do they measure?
A. They measure change in color that sometimes you cannot see if you add a substance to it.
Q. Don't they measure the ability of the sample to absorb or block light?
A. They could. I don't know.
Q. Do they?
A. It depends on the assay. What assay are you

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referring to in particular?
Q. Well, we just agreed that -- do you know one way or the other whether any of the assays that you ran rely on optical density measurements?
A. Yes.
MS. O'DELL: Object to the form.
THE WITNESS: We -- some of the assays that we did for ELISA or, for example, protein assays to determine how much protein you have, it depends on change in wavelength and change in color in response to wavelength.
BY MR. HEGARTY:
Q. But they --
A. It's called colorimetric.
Q. But it also -- but it measures the ability of the sample to absorb or block light, right?
MS. O'DELL: Object to the form.
THE WITNESS: I'm not sure about absorb light. I'm not sure about that. It changes color based on the reaction. For example, with a protein assay, if you oxidize copper one to copper two, reduce it, that is accompanied by change in color. So the colorimetric assay at this specific wavelength will determine that. The change, the degree, how much color is changed, which is proportional to how much protein

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you have.
BY MR. HEGARTY:
Q. Can the presence of particulate matter in the solution analyzed in these optical assays affect the results?
MS. O'DELL: Object to the form.
THE WITNESS: Again, there is a misunderstanding of what's going on here.
BY MR. HEGARTY:
Q. Well, I'm not talking about --
MS. O'DELL: Excuse me.
BY MR. HEGARTY:
Q. -- what you specifically --
A. Let me finish, please.
MS. O'DELL: No, no. Excuse me.
MR. HEGARTY: I'll withdraw the question.
MS. O'DELL: Let him finish his answer.
MR. HEGARTY: I just withdrew the question.
MS. O'DELL: No. He was --
MR. HEGARTY: If you want to ask him the question, you can ask him.
MS. O'DELL: No.

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MR. HEGARTY: I withdrew the question.
MS. O'DELL: No. If he has started to answer the question that's on the table, he's entitled to finish his answer.
MR. HEGARTY: I don't agree with that.
MS. O'DELL: Otherwise, the record is not clear, and the doctor's trying to explain his answer.
MR. HEGARTY: The record is clear. I withdrew the question.
MS. O'DELL: No. The record is not --
BY MR. HEGARTY:
Q. Doctor, listen to my question.
MS. O'DELL: You may finish your answer, Doctor. Please continue.
MR. HEGARTY: No, you may not finish your answer, because there's no question pending. There's nothing to answer.
MS. O'DELL: That is --
MR. HEGARTY: I withdrew the question.
MS. O'DELL: Well, the answer --

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THE WITNESS: You asked me a question.
MS. O'DELL: If the question is --
MR. HEGARTY: You are not answering my question.
MS. O'DELL: Excuse me. Excuse me. Let him finish, but if you're not going to let him finish, the question is struck and the answer is struck, so it can't be used against him --
MR. HEGARTY: I agree.
MS. O'DELL: -- if you're not going to let him finish his answer.
MR. HEGARTY: I agree.
BY MR. HEGARTY:
Q. Let me ask a different question. Generally, without regard to the tests that you ran, can the presence of particulate matter in solutions analyzed by optical density assays affect the results?
MS. O'DELL: Object to the form of the question. Excuse me. This is also an area that was covered last time, which representation by Ms. Sharko was that topics previously covered would not be reviewed again.
So Doctor, if you understand the

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question, I'll let this question be answered, but we're not going to revisit every topic.

MR. HEGARTY: That was not the representation --

MS. O'DELL: Yes, it was.

MR. HEGARTY: -- and that was a different question, and we said that -- I'm not going to get into this debate because it's been debated again. If you want to instruct him not to answer it, you can do so at your peril.

BY MR. HEGARTY:

Q. Would you answer my question, please?

MS. O'DELL: Yeah, don't -- don't -- don't say anything like that to me.

If you understand the question, you may answer, Doctor. If you need the question repeated, we can do that.

THE WITNESS: Okay. So just for the record, can you please repeat the question?

BY MR. HEGARTY:

Q. Generally, without regard to the testing that you ran, can the presence of particulate matter in solutions analyzed by optical density assays affect the results?

MS. O'DELL: Objection to the form.

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You may answer any way you choose. You're not limited to not talking about your own data.

THE WITNESS: The answer is -- I mean, there's no answer yes or no here. This is very complicated answer. You want me to explain, I can explain. There is no yes or no. The question is wrong.

BY MR. HEGARTY:

Q. Why is the question wrong?

A. Because it doesn't work like that.

Q. Okay. Tell me why it doesn't work like that.

A. I'm tell you. I'll tell you. So when we -- when we measure colorimetric assay for proteins, these were proteins extracted from cells. They have no -- nothing from outside, no talc, no powders, nothing else. This is total protein extracted from lysate of cells, so whatever is in the cells can interfere with the assay, you can ask that question, that's fair, but outside, no, because there is no outside source. You know what I mean?

Q. What did you do in your tests to insure that through your test procedures you didn't carry along any talc particles?

A. You can't carry talc particles because it

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carries proteins.

Q. How is that?

MS. O'DELL: I'm sorry.

THE WITNESS: The methodology --

MS. O'DELL: You did not let him finish, Mark. Please finish, sir.

THE WITNESS: Okay. This is really easy. I can explain. This is very easy, Mark. The methodology that you use, you treat, you wash the cells, the cells are alive, you wash them, and then you lyse them, and then you extract proteins. Hopefully, the method that you extract proteins that you use does not bring anything else, because we have been establishing this from 1960.

It only carries proteins, and you go through different phases of purification until you extract total proteins. And this is very standard method, and whatever you get there is only protein that comes from cells.

BY MR. HEGARTY:

Q. How are you able to rule out that talc particles did not enter the cell and were picked up until the lyse and the extraction of proteins?

A. You have --

MS. O'DELL: Objection to form.

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THE WITNESS: That's why you have a control. We have a control, treated versus untreated, we extracted proteins from both cells, and then you only extract purified proteins. We have purified proteins there.

We just determine -- we use the colorimetric assay, the BSA-based colorimetric assay to determine how much protein we have there so we can compare the same amount of protein between treated and untreated. That's the idea.

BY MR. HEGARTY:

Q. But how does comparing untreated to treated rule out that you didn't pick up talc particles that had entered the cell and were then extracted with the protein?

MS. O'DELL: Object to the form.

THE WITNESS: I already answered you. Do you want me to repeat it and waste your time? It's fine. It's up to you.

I already told you, there is -- we extract -- the methodology that we use to extract -- to purify -- how about that -- purify proteins from cells, okay, is what you get there, your final product that you get is proteins.

BY MR. HEGARTY:

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Q. Okay. If you turn to page 32 of your lab notebook.
A. I am not mad, I'm just -- sorry. Which one?
MS. O'DELL: Exhibit 2.
BY MR. HEGARTY:
Q. Page 32.
A. Okay.
MS. O'DELL: Exhibit 2.
THE WITNESS: This one?
BY MR. HEGARTY:
Q. There's handwriting -- it's dated 2-1-2018, correct?
A. Yes.
Q. There's a handwritten reference to UNT, both -- and then there's is a typed UNT. What does UNT mean?
A. Untreated.
Q. Was there only one control for each cell type?
A. One dish, yes.
Q. So there could be only one volume of DMSO added per cell line, correct?
MS. O'DELL: Objection to form.
THE WITNESS: The question is not

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clear really.
BY MR. HEGARTY:
Q. Well, you had -- said you had one control dish for each cell line tested, correct?
A. Yes.
Q. And in that control dish, you would add an amount of DMSO, correct?
A. Correct.
Q. So how much DMSO did you add to that one control dish for each of the cell lines tested?
A. Okay.
MS. O'DELL: Object to form.
THE WITNESS: So let me answer this. So we have DMSO alone, and DMSO dissolved in a DMSO talc. So whatever treatment volume we use here, we use the same here. So if we used 50 microliters here to treat the cells from the treated, from the DMSO talc, we used 50 microliters again for DMSO control. Same volume.
BY MR. HEGARTY:
Q. So you had -- so you had three control dishes so that you would have to control dish for each dose of talc?
MS. O'DELL: Object to the form.
THE WITNESS: Three control dishes?

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BY MR. HEGARTY:
Q. Well, you said you added DMSO to the controls that corresponded with the amount of talc in DMSO to the various cell lines, correct?
MS. O'DELL: Object to form.
THE WITNESS: Okay, let me answer you. So you have, for example, EL1, which is macrophages, okay. You have one, two, three, four plates, cells. You call them plates, right. So plate one is untreated. You add -- we -- we make the concentrations 5, 10, 20, a hundred in a fixed volume of DMSO. Let's say it's 50 microliters, okay.
So we add 50 microliters of DMSO to untreated, 50 microliters to -- that contain 5 micrograms to this one, 50 microliters DMSO that contains 20 micrograms to the next one, 50 microliters of DMSO that contains a hundred microgram of talc to the next one. So they all have the same volume. But one with -- without the powder, and one with the various concentration of powder.
BY MR. HEGARTY:
Q. I gotcha. Would you turn to page 67 of your lab notebook, Exhibit 2? Are you there?
A. Yes.
Q. You list there your calculations for CA-125,

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correct, in the table at the bottom?
A. Yes.
Q. What test methods or what testing was done to get those levels, get those values?
A. I don't understand the question.
Q. Well, what -- what tests -- what -- how do you test the -- the samples for CA-125? What is the -- what is the process for doing that, that generates these numbers?
A. ELISA.
Q. And physically how does it -- how is it done? Do you put it in a machine and it generates the -- the data?
A. Physically you -- you are provided with a standard curve, I mean CA-125 protein with different concentration, yes, and then you can use the different concentration to create the standard curve, and then you can run the standard curve with your samples as indicated by the 96 full plate here, and then ELISA read it, right, and then you get the results.
Q. What is the date of the plate setup for this test? It says plate setup, but I don't see a date for it.
A. It's -- it is -- yes, I see the date. It's right here. It says January 17. See it?

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Q. That is the date of the plate setup?
A. If it says inside here, yes.
Q. What was the date that the test results were generated? When were the samples tested? Is there a date next to --
A. No, no. They're all together. You can't run standard and stop and leave and go home. They're all run at the same time because you need to compare to a standard.
Q. When were the cells treated for the CA-125 test?
A. When were the cells treated for -- this is -- I think it's in the beginning of the ELISA. So -- yes. So this -- I don't know when we treated this. It must be the same date. I don't have a note of that.
Q. Well, you report in your manuscript --
A. January 17.
Q. -- that you tested for CA-125 up to 72 hours --
A. Yes.
Q. -- of exposure, correct?
A. Yes.
Q. Where is that reflected in your notebook?
A. It's here.

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MS. O'DELL: What page are you referring to?
BY MR. HEGARTY:
Q. Yeah, what page are you referring to?
A. January -- 63. Where is the cell treatment for this. Yeah. I only have the date for the assay on here. But the treatment, these are the 12, 12 plus 100. Let me check the manuscript which one we did here. CA-125. Let's see. So for this one, we used a hundred microgram per mil, one dose to do the assay.
Q. And in your manuscript you say activity assay was utilized to determine apoptosis of all cell lines -- I'm sorry, that's apoptosis. Let me back up to --
A. If you go to here, you can see the -- the legend. If you go to legend for CA-125, and it tells you that we used a hundred micrograms per mil dose, and in this time, we only did one dose, the highest dose.
MS. O'DELL: What -- what figure are you referring to?
THE WITNESS: It is figure four legend. It says increase CA-125, and this one is about treatment, and these are the cell lines that we used, they are here, and the table, and this is referred to a hundred micrograms per mil. It's one

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dose only.
BY MR. HEGARTY:
Q. For how long of exposure?
A. That's -- here it says 48 hours, but it is 72 hours.
Q. Where then is the data in your notebook showing treatment of the cells for the CA-125 test, and then 72 hours later you're running the test results?
A. I can't see it here. I cannot see it in my notebook.
Q. Okay. Let's --
A. But I have some cells from January 10, CA-125 ELISA with the trial, for the trial from --
Q. But for 72 hours, they would have been treated 72 hours before January 17th, correct?
A. Yes, 72 hours it says.
Q. What page are you pointing to?
A. This is page 13. This is the trial experiment that we did.
Q. Right now I'm talking about the -- not the trial experiment, the manuscript experiment.
A. They would have been done the same date almost. This is January 10, that's January 17. So we were treating the cells probably at the same time. I'm not sure. It's not written here.

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Q. You do agree that you would have had to treat the cells three days before January 17th, correct?
A. Correct. So this is why the trial experiment started on January 10th.
Q. You can't find in the notebook on -- notebook Exhibit Number 2, treatment for the CA-125 test on January 14th, 2018?
MS. O'DELL: Object to the form.
THE WITNESS: I only -- I found the trial experiment that I did, which is dated January 10.
BY MR. HEGARTY:
Q. That couldn't be the same cell line, right?
A. I'm not sure.
Q. If you go to your -- your page 50 in your notebook, please.
A. Okay. That's 33?
Q. I'm sorry. Go to page 49 of your notebook.
A. 49, which is GPX.
Q. Correct. If you would look at sample ID 358. Do you see that sample ID to the left?
A. 358, macrophages, 20 micrograms per mil.
Q. And if you go over to the normalized data to the far right, do you see that normalized data of 2.17,

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2.46 and 2.39?
A. Yes.
Q. And do you see the average of 2.47?
A. Yes.
Q. How can you have an average of 2.47 when none of the normalized data is above 2.46?
A. 2 point -- hold on one second. 2.17, 2.46, 2 point -- actually, it would be lower. That's even better.
Q. That's not my question, Doctor.
A. I know. I understand. I'm just looking why we -- probably this happened. The answer is, probably it's a typo, it's a mistake. But if you add it, then you will get a lower value.
Q. Understood. But if you -- when I did the average, I came up with 2.34.
A. Yes.
Q. Why is this reporting 2.47?
A. These are formulas already linked to the -- each section, so maybe sometimes by mistake you -- you link to the wrong cell number.
Q. Can you explain why the number is wrong?
MS. O'DELL: Object to the form.
THE WITNESS: I can't explain. Just a mistake.

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BY MR. HEGARTY:
Q. If you go over to --
A. If the -- for the record, if they were averaged correctly, you will get the lower number --
Q. If you would --
A. -- which is -- which is better.
Q. When you say better, better in what way?
A. I mean it's more consistent with the -- with the data.
Q. Go over to page 61, please.
A. ELISA?
Q. It's just a table of data.
A. This? 61? Yes.
Q. Okay.
A. Let me see what's this first.
Q. It should be a table dated January 11, 2018.
A. This is for catalase.
Q. Okay.
A. January 11?
Q. Yes.
A. Yes, I got that.
Q. If you look at the very first line over A2780 dash C, do you see that line?
A. Um-hum.
Q. Yes?

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A. Yes.
Q. You go over and you see the 9.98 number, the 11.63 number and 10.50 number?
A. Yes.
Q. When I took -- added those numbers and divided by three, I got 10.7 instead of 11.07. Do you know why that is the case?
MS. O'DELL: Object to the form.
THE WITNESS: What did you get?
BY MR. HEGARTY:
Q. Well, if you add those three numbers and you divide by three, you get 10.7, not 11.07, and my question to you is, do you know why that's the case?
A. Can I add them?
Q. Yes.
MS. O'DELL: Do you need a piece of paper?
BY MR. HEGARTY:
Q. Do you have a --
A. Yeah.
Q. -- phone?
A. Yeah. 9.98 plus -- 10.7. This is 11.07. I don't know. It's a very small difference, nothing significant.
Q. Would you turn over to page 105 of your

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notebook, please?
A. 105.
Q. In the chart on that page, you list the results for the HOSEpic control and for talc, correct?
MS. O'DELL: What page are you on?
BY MR. HEGARTY:
Q. That cell line?
A. H --
Q. H-O-S-E --
A. HOSEpic, yeah.
Q. HOSEpic?
A. Um-hum.
Q. For the control and for talc, the results are listed, correct?
MS. O'DELL: I'm sorry, what page are you on?
THE WITNESS: I don't understand what you're saying.
BY MR. HEGARTY:
Q. Well, you list results for the cell line HOSEpic control and talc, correct?
A. Correct.
MS. O'DELL: You're on page 105?
THE WITNESS: 105?
MS. O'DELL: Give me just a moment,

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'cause I don't think I'm on the same page. This is what I have for -- what page are the Bates number, Mark, just to make sure?

MR. HEGARTY: 85. He's working off the other number.

MS. O'DELL: I know that. But I'm just trying to make sure --

THE WITNESS: 105. Thank you for your help.

BY MR. HEGARTY:

Q. In your manuscript, you don't report the results for the HOSEpic cell line. Why is that?

A. Because this is a normal ovarian, epithelial ovarian, and we already did another normal epithelial ovarian, so -- and we had the same results. The HOSEpic is normal.

Q. Would you go a couple pages over to 107, please?

A. MTT?

Q. MTT Cell Proliferation.

A. Um-hum.

Q. Do you see that page?

A. I do.

Q. In the table above the graph, it says Cytotoxicity Percent. Do you see that table?

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A. Yes.

Q. Then in the graph below it says, cell proliferation above baseline percentage. Why does the table report cytotoxicity and the graph report cell proliferation above baseline?

A. I need to explain.

Q. Okay.

A. Okay. So MTT measures cell proliferation that is proportional to cell death. So the cells that proliferate, there are cells that die. So you can here the percentage of cell proliferation above the baseline is the cells that proliferated, here is the toxicity, the cells that died. So it's two different ways of interpreting it.

Q. Go back one page to 106, please.

A. 106.

Q. At the top it says, MTT Cell Proliferation Assay, correct?

A. Correct.

Q. You report on that page the seeding of cells on 9-4-2018, correct?

A. Correct.

Q. And then below on 9-6-28 (sic) it says after 24 hours treatment, correct?

A. 9-5.

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Q. Well, 9-6.

A. 9-6?

Q. Do you see where it says, the first line after 9-6, after 24 hours treatment?

A. Um-hum.

Q. Yes?

A. Yes.

Q. And turn to the next page, the raw data is reported on 9-6-2018; is that correct?

A. Yes.

Q. In your manuscript, though, you report cell proliferation data for 72 hours. So here you're seeding cells on 9-4, and then you're taking tests after 24 hours. Where does the 72 hours come from? Where did the 72 hours come from?

A. So 9-4, treat cells with talc. 9-5, 9-6 is 24. Oh, yeah. So this one -- this one is 24 hours only. What does it say here?

Q. Well --

A. I want to see it.

Q. Yes. It's over on -- if you look at page six, you report cell proliferation and apoptosis using MTT cell proliferation assays with talc, 100 micrograms per milliliter for 72 hours.

A. Yes, this is -- this is 24 hours.

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Q. But you -- that same table -- I'm sorry, the same graph you have there is the same graph you have in your manuscript.

A. Yes.

Q. So where is this data for 72 hours?

A. There is no data. This is the data. It's 24 hours.

Q. So why did you report in your manuscript that it's for 72 hours?

A. It's a typo, a mistake. Because we've done -- everything else is 72 hours, that's why.

Q. So it's your testimony that in your manuscripts where you report cell proliferation from 100 micrograms per milliliter of talc for 72 hours, that should be 24 hours?

A. What we did here is clearly explained in the notebook. It says when we seeded the cells and when we treated the cells and when we did the assay, and that's 24 hours. It says after 24 hours treatment.

Q. Understood. Why does your manuscript say 72 hours?

A. It's a mistake. I told you, okay. But it says clearly in my notebook, it says after 24 hours of treatment, and this is the dose, 100 microgram per mil of talc.

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Q. Do you intend to correct that mistake, Doctor?
A. Of course. But this -- this manuscript is not rejected.
Q. I understand that. But the manuscript has been accepted with you reporting your data for cell proliferation for 72 hours, correct?
A. This is a normal practice. When we get the proof, we go over the manuscript, we make sure everything is correct, and we -- we edit it. It's not the first time. It's very basic.
Q. Did you find this mistake before right now?
A. The 24 hours?
Q. Yes.
A. I'm sure we will find it when we read it.
Q. That's not my question. My question is, is this the first time you're appreciating that you made a mistake in your manuscript, that it should be 24 hours instead of 72 hours?
A. I answered.
Q. What's your answer?
A. I would have picked it up on the reproof.
Q. Had you picked it up before right now?
A. I didn't get the reproof yet.
Q. But had you picked up the error before right

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this moment?
A. You want me to say something? Okay. I already said, when I get the proof -- this is a mechanism in our lab. When I read the proof, we sit down, and we make sure that everything is accurate according to our notebook, what we did, and then we have the opportunity to fix it.
Q. Had you --
A. I have not got the proof yet, so I will look for it, and when it comes, I will fix whatever needs to be fixed.
Q. But were you aware of this mistake before right now?
A. I didn't look specifically for this one.
Q. When you say the proof, you're talking about the proof from the publisher?
A. Yes, the proof.
Q. You don't -- you don't do that comparison before you send it to the publisher?
MS. O'DELL: Object to the form.
THE WITNESS: We do, we do, but sometimes with too many data, too much information, you know, you do mistakes.
BY MR. HEGARTY:
Q. Now, MTT doesn't measure cell proliferation

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directly, correct?
A. I don't understand your question.
Q. Well, it's not a direct measure of cell proliferation, is it?
MS. O'DELL: Object to form.
THE WITNESS: I don't understand your question.
BY MR. HEGARTY:
Q. What don't you understand?
A. The question is scientifically wrong.
Q. Why is it scientifically wrong?
A. What you mean by direct?
Q. Well, it's an indirect measure of cell proliferation?
A. I'm asking you, what do you mean by -- you said -- you asked me if it's direct measurement, right?
Q. You're not --
A. I'm asking you, what do you mean by direct?
Q. You're not counting the number of cells that are proliferating?
A. Of course you are.
MS. O'DELL: Excuse me. Object to the form.
BY MR. HEGARTY:
Q. In what way?

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MS. O'DELL: Object to the form.
THE WITNESS: Okay. The -- okay. So the basis of the -- of the MTT that cells that absorb the dye are the cells that are proliferating, and cells that do not absorb the dye, cells are dying, so you can take that, it's a direct measure of proliferation.
BY MR. HEGARTY:
Q. And how do you count the cells?
A. The dye, the ELISA. You do the measurements, you do the quantitation, how much dye was absorbed for cells. So when you say direct, that's one of the best techniques that we have. And by the way, this is very standard technique to measure cell proliferation.
Q. Go over, please, to what would be page 104 of your notebook, Exhibit 2, 104. It should look like this.
A. Yes.
Q. These are the --
A. SNPs.
Q. The talc matter results?
A. Correct, the SNP analysis.
Q. These show color dots that are very close together, correct?

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A. Yes.
Q. Who read the charts and recorded the data?
A. I need to explain this.
Q. Okay.
A. So this is done by a Core Facility at Wayne State University. We sent them the DNA from the treated cells, and they run the SNP assay, and they give us the data exactly as you see it here.
Q. Do you know how they generate that data?
A. I don't.
Q. Do you know who generated the data, who at Core?
A. By name?
Q. Yes.
A. No. We submit it online. There's a form that you fill out, and which -- it goes to them, and you send them the samples. I can't remember names.
Q. Do you know what the two colored dots represent?
A. I'm not sure, but probably for alleles, different alleles.
Q. Well, you have green dots and you have red dots. What do those mean?
A. Alleles, C versus T, A versus G. I'm not

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sure exactly how they --
Q. None of your tests showed development of neoplastic cells, correct?
A. Proliferation does.
Q. Are you equating cell proliferation with neoplastic development?
A. It's an indirect --
MS. O'DELL: Object to form.
THE WITNESS: It's an indirect proliferation. It is an indirect measure of -- of the beginning of a transformation.
BY MR. HEGARTY:
Q. Well, you showed no transformation of normal ovarian cells to cancerous cells, correct?
MS. O'DELL: Object to form.
THE WITNESS: No. These are immortalized normal. They do not transform.
BY MR. HEGARTY:
Q. Well, there are tests -- are there not tests to measure whether normal cells have undergone neoplastic changes?
A. Again, the question is not clear, because the normal that we used are immortalized cell lines. That means they do not change unless you really beat them up.

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Q. Have you ever done in any -- strike that. Have you ever done any tests to look for neoplastic changes in cells directly?
A. No.
Q. Have you ever taken results like you had with your tests and applied them in an invitro model?
A. I'm sorry?
MS. O'DELL: Object to the form.
THE WITNESS: I'm not clear.
BY MR. HEGARTY:
Q. Have you ever taken results of any testing you've done like this and taken them and applied them in an animal model?
MS. O'DELL: Object to the form.
THE WITNESS: Can you explain what "like this" means? Like transformed?
BY MR. HEGARTY:
Q. Well, the tests that you did for your manuscript, have you ever done tests like those and applied those in an invivo model?
A. What tests?
MS. O'DELL: Object to form.
THE WITNESS: What tests you're talking about?

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BY MR. HEGARTY:
Q. The tests in your manuscript, the tests in your notebook.
A. I have done one million tests. Which one?
Q. Any one. Have you ever applied in any -- in any of your work, have you ever taken any of your work and applied it in an invivo model?
MS. O'DELL: Object to the form.
THE WITNESS: Not related to this project?
BY MR. HEGARTY:
Q. Yes, in any sense.
A. I don't remember. I really didn't understand the question, to be honest with you.
MS. O'DELL: Well, don't answer a question if you don't understand it.
THE WITNESS: I really did not understand it.
MS. O'DELL: If you don't --
BY MR. HEGARTY:
Q. If you can --
MS. O'DELL: If you don't understand the question, please don't --
THE WITNESS: It's a very confusing question. It's made of two components that contradict

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each other.
BY MR. HEGARTY:
Q. You can treat cells and then inject those cells into an animal model, correct?
A. What do you mean by animal model?
Q. Like a rat or a mouse?
A. Why would you do that?
Q. To do an invivo test for your results?
A. That's the wrong way to do invivo test.
Q. How do you do an invivo test?
A. You create from -- invivo from within, not inject the cells.
Q. Okay. Have you ever taken cells that you created --
A. I didn't -- you don't take cells for invivo. You create the environment invivo for the animal and watch for the response of the animal.
Q. Have you ever done that?
A. No.
MR. HEGARTY: Okay. We need to change tapes. Let's go off the record.
THE VIDEOGRAPHER: We're going to go off the record. The time is now 11:09.
(There was a recess taken.)
THE VIDEOGRAPHER: We're back on the

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record, the time is 11:19.
BY MR. HEGARTY:
Q. Doctor, please turn to page 35 of your lab notebook, Exhibit 2. At the top it should read RNA Concentration. Is that correct?
A. Correct.
Q. Yes?
A. Yes.
Q. If you look over to the right-hand column where it lists at the top 260 slash 230, do you see that?
A. The ratio? Yes.
Q. Yes, the ratio. The normal ranges for the 260 to 230 ratio is 2.0 to 2.2, correct?
A. Not correct.
Q. What is the normal ratio?
A. We don't look at 260, 230. We look at 260, 280.
Q. Understood. But I'm focusing on 260 and 230.
A. I don't know.
Q. What's the normal ratio?
A. I don't know. It doesn't mean anything.
Q. What doesn't mean anything?
A. The 230. What we look at is the 260, 280

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ratio.
Q. What's the normal ratio for 260 to 280?
A. Around 2.
Q. When you say around 2, what is the range?
A. 1.7, 1.8, 1.9, 2.
Q. How about -- strike that. Many are above that range. You have numbers is at 2.31, 2.25, 2.24. Do you see that?
A. I do.
Q. Could that indicate -- could those values indicate the presence of contaminants?
A. No.
Q. Why not?
A. This is just indicate the -- the percentage of degradation of RNA. Nothing to do with contamination. The quality of the RNA and whether there is DNA in there.
Q. If you look back at Exhibit 26, that's the abstract that we marked F dash 098.
A. Um-hum.
Q. I'm sorry.
MS. O'DELL: Exhibit 26?
BY MR. HEGARTY:
Q. I'm sorry. We're looking at --
A. The manuscript?

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Q. Just a second. We're looking -- I think I gave you the SRI previously, the SRI abstract. You have that over there?
A. CA-125?
Q. Yes. What's that marked as?
A. CA-125, that's 25.
Q. Okay. If you look at Number 25, you report there in the Method section that you treated for purposes of your CA-125 cells with a thousand micrograms per milliliter of talc for 72 hours; is that correct?
MS. O'DELL: Give me just a minute, because you didn't give me a copy of that exhibit, so I need to pull it up. Would you repeat the question, please?
BY MR. HEGARTY:
Q. Do you need the question repeated, Doctor?
A. Please.
MS. O'DELL: I need the question repeated.
BY MR. HEGARTY:
Q. Doctor, in the Method section --
MS. O'DELL: I don't have access to it real time, so if you'll give me a moment to hear the question.

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MR. LAPINSKI: Miss Court Reporter, could you repeat the question back, please?
MR. HEGARTY: Let me -- let me restate it.
BY MR. HEGARTY:
Q. Doctor, in the Method section for this abstract, you report on treating primary normal epithelial cells with or without a thousand micrograms per milliliter of talc for 72 hours. Is that what you did?
MS. O'DELL: Object to the form.
THE WITNESS: Yes.
BY MR. HEGARTY:
Q. Where is the data that you reported treating for a thousand micrograms per milliliter of talc for 72 hours for the CA-125 test?
A. Page 12 and 13.
Q. Of which book?
A. Two.
MS. O'DELL: And that's Exhibit 24. Excuse me. I apologize. It's not Exhibit 24. It's --
BY MR. HEGARTY:
Q. Can you show me that page, please?
A. (The witness complies).

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MS. O'DELL: It's Exhibit 25 -- 3, excuse me.
THE WITNESS: Thank you.
BY MR. HEGARTY:
Q. You report that you used talc from Sigma-Aldrich; is that correct?
A. No.
Q. Where did your talc come from?
A. Fisher. This is Fisher. Sigma-Aldrich is from the south cell line.
Q. So that's a mistake, correct?
MS. O'DELL: Object to the form.
BY MR. HEGARTY:
Q. Is it a mistake?
A. I think this was trying to refer to ATCC cells, where we got them from, the cell lines that we used.
Q. In the Conclusion section, you say that this will provide a molecular basis to previous reports that linked genital use of talcum powder to increased risk of epithelial ovarian cancer. Do you see where I'm reading?
A. Yes.
Q. How will those results -- or how did those results provide a molecular basis to previous reports

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that linked genital use of talcum powder to increased risk of epithelial ovarian cancer?
A. So when a substance induces CA-125, CA-125 is a marker for inflammation. If a substance is able to induce a marker of inflammation, and we know that inflammation in this specific marker is a marker for ovarian cancer, then we conclude that it is a molecular basis to that.
Q. Can you cite for me any studies correlating elevations in CA-125 levels in patients who do not have ovarian cancer to ovarian cancer risk?
MS. O'DELL: Object to the form.
THE WITNESS: Say that again, please.
BY MR. HEGARTY:
Q. Sure. Can you cite for me any published studies correlating elevations in CA-125 levels in women who do not have ovarian cancer to ovarian cancer -- to risk of ovarian cancer?
MS. O'DELL: Object to the form.
BY MR. HEGARTY:
Q. In other words, showing an association between elevated CA-125 levels and the risk of ovarian cancer?
A. Yeah, yeah.

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MS. O'DELL: Object to the form.
THE WITNESS: I'm not -- I'm not -- this is not my specialty. I would defer this to an OB/GYN oncologist. But what I know, my interest here, anything that induces inflammation is what I'm interested in. In my mind, anything that induces inflammation is associated with increased risk based on the data that we've shown.
BY MR. HEGARTY:
Q. Can you cite for me any published studies correlating increased levels of CA-125 with ovarian cancer risk?
MS. O'DELL: Objection, asked and answered.
THE WITNESS: It is correlated with -- with inflammation, it's correlated with the pathogenesis of ovarian cancer.
BY MR. HEGARTY:
Q. Can you cite for me any studies that say that?
A. Pathogenesis?
Q. No, that it's correlated with inflammation?
MS. O'DELL: Object to form.
THE WITNESS: I'm talking about inflammation --

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BY MR. HEGARTY:
Q. Correct.
A. -- not CA-125. As I told you, CA-125 I'm not an expert in. This for a -- I defer this to an oncologist -- OB/GYN oncologist. But what I'm saying is very clear. Anything that induces inflammation, and specifically inflammation that is linked to pathogens is ovarian cancer.
Q. For this abstract, did you include any conflict of interest disclosure?
A. What abstract is this?
Q. The abstract Number 25, Exhibit Number 25.
A. You don't need to include any conflict of interest for any SRI abstract.
Q. Okay. Next, would you find Exhibit 26, which we previously marked as -- which is the F-098 abstract? It was previously marked as 26.
A. I don't have it.
Q. I just saw it there I think.
A. Where?
Q. Right there.
A. Sorry.
Q. In the Method section of that abstract, you again report using talc from Sigma-Aldrich; is that correct?

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A. Again --
MS. O'DELL: Object to form.
THE WITNESS: -- this refers to the cell lines. The talc we used for this abstract was from Fisher.
BY MR. HEGARTY:
Q. There's a reference from using a cell line MDAH dash 2774. Do you see that?
A. Using MDAH-2774.
Q. Yes.
A. Yes.
Q. Why did you not use that cell line for your manuscript?
A. Which one we used for the manuscript, let me see. Oh, we used A2780 instead. I think that was not available when we did the manuscript. This is 2017 work.
Q. Did you include a -- a conflict of interest disclosure with this manuscript, F dash 098?
MS. O'DELL: Object to form.
THE WITNESS: That's not a manuscript.
BY MR. HEGARTY:
Q. I'm sorry.
A. That's an abstract.

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Q. Fair point. Did you include a conflict of interest disclosure with this abstract?
A. This is SRI?
Q. Correct.
A. They do not require that.
Q. I'm sorry. This is Reproductive Sciences.
A. SRI.
DEPOSITION EXHIBIT 28
Correspondence From the FTO
WAS MARKED BY THE REPORTER
FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I'm going to next mark as Exhibit 28 correspondence from the FTO regarding the 50th Annual Meeting on Women's Cancer in March 2019. Do you see that?
A. This is -- this is the -- the poster work we are going to present in Honolulu, yes.
MS. O'DELL: I think you said 2019.
THE WITNESS: Yeah.
MS. O'DELL: But I want to be clear on what the question is.
BY MR. HEGARTY:
Q. Have you prepared that poster?
A. It's a March 16, 2019.

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Q. Right. Have you prepared that poster?
A. Yes.
Q. Do you have a copy of it?
A. No.
Q. Well, I asked you if you prepared it, and you said yes.
A. Yeah, Amy prepared it, Dr. Harper.
Q. Did -- did Amy prepare a poster for this meeting?
A. I said yes.
Q. And do you have a copy of it in your office?
A. Here now?
Q. Here now.
A. Here now, no.
Q. Do you have a copy in your office?
A. Do I have a copy in my office? Yes.
Q. This presentation is to be about --
A. It's not -- for the record, the copy is not complete yet.
Q. This presentation is for your manuscript; is that correct?
MS. O'DELL: Object to the form.
THE WITNESS: Not correct.
BY MR. HEGARTY:
Q. What is it for?

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A. It's -- this is only for the -- if I remember correctly, this is only for the -- the SNP analysis.
Q. The SNP analysis that's reported in your manuscript?
A. Correct. Part of the manuscript.
Q. And Dr. Harper is planning to present at this meeting?
A. Correct.
DEPOSITION EXHIBIT 29
Correspondence Regarding SGO Meeting
WAS MARKED BY THE REPORTER
FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I'm going to next mark as Exhibit 29 another document we've been provided, which is correspondence regarding the same SGO meeting; is that correct?
A. For submission for the abstract, yes.
Q. This is an e-mail from Lynette Kelley dated January 29, 2019?
A. Correct.
Q. This e-mail refers to your inquiry on the completed disclosure. Do you see that first line?
A. I do.

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Q. Where is the disclosure that you provided?
A. Where is the disclosure?
Q. Well, this indicates you provided to SGO a disclosure; is that correct?
A. It is online.
Q. The e-mail says, notes since you have no financial ties with the commercial entity, there is nothing for you to disclose. Do you see where I'm reading?
A. I do.
Q. Do you know what she means by that statement?
A. Yes. Because in the disclosure form it says if you have a conflict of interest, yes or no, and it indicates specifically that -- that what they like to see in the conflict of interest is a commercial -- financial interest from commercial companies that they are working with you to develop drugs or to develop products. I told them about Beasley Allen specifically, and they said no, you don't have to, that's not a conflict of interest.
Q. When you -- when you say you told them, you talked about you told Lynette Kelly?
A. Yeah, yes, I talked to her.
Q. This is what she's referring to when she says regarding your inquiry?
A. Correct. I picked up the phone and I called her to confirm it.
DEPOSITION EXHIBIT 30
Correspondence Regarding the 50th Annual SGO Meeting
WAS MARKED BY THE REPORTER
FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I'm next marking as Exhibit 30 --
A. I'm sorry.
Q. -- further correspondence regarding the 50th Annual HGO meeting -- SGO meeting. Do you see that, Doctor?
A. Yes. That's to Amy, yes.
Q. This correspondence dates back to September 12th, 2018, correct?
A. It says so, yes.
Q. Are you a member of SGO?
A. Yes.
DEPOSITION EXHIBIT 31
Correspondence to Ms. Thompson at Beasley Allen Regarding an SGO Abstract
WAS MARKED BY THE REPORTER
FOR IDENTIFICATION

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BY MR. HEGARTY:
Q. I've next marked as Exhibit 31 correspondence from you to Ms. Thompson at Beasley Allen regarding an SGO abstract, correct?
A. What is this?
Q. At the very top it says, Subject, SGO Abstract.
A. SGO Abstract. I see it written, but I'm trying to remember what -- which one is this.
Q. Well, is this the abstract for the SGO meeting?
A. Is it? I don't know. I can't remember. Let's see. Do you have the abstract for the SGO meeting?
Q. This is all we have, Doctor.
A. We have an abstract. This is missing. Do we -- oh, oh, sorry. It's right here. Okay. What about this?
Q. Why did you communicate with Ms. Thompson regarding this abstract?
A. Why not? I work for them. They -- they pay for my time.
MS. O'DELL: Excuse me, wait a minute.

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THE WITNESS: What's wrong?
MS. O'DELL: Object to any inquiry that relates to communications with counsel, so I instruct you not to divulge communications with counsel.
MR. LAPINSKI: Let me see that.
BY MR. HEGARTY:
Q. At the very end of the abstract, Doctor --
A. Here?
Q. -- Exhibit 31, where it talks about the first presenting author, it says, will not be published. What does that mean?
A. I don't know.
Q. Okay. You do intend to publish part of this data, correct?
A. This is already accepted and published.
Q. So why is she saying that --
A. Who is "she"? I don't know where this is coming from.
Q. Let me finish my question. Why does it say will not be published?
A. Hold on one second. Abstract -- this is from me -- I have no idea why it says that, because we submitted it and it's accepted. It's published. When

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it's accepted, it's published.
Q. Dr. Harper is a fellow; is that correct?
A. Oh, now I remember. Yes, yes.
Q. Okay. You said you remember?
A. Yeah, yeah. You know where they -- I think, I'm not quite sure, but I think when they have the e-mail where they say confidential, whatever, whatever, I think that's part of it.
You know, some e-mails they have everything in this e-mail is confidential, and it's like -- it reads like that, but maybe this is part of it. I don't know what the answer is. But it is going to be published. It is already accepted, and it's going to be presented.
DEPOSITION EXHIBIT 32
Abstract Submission to the 66th Annual Scientific Meeting For the Society of Reproductive Investigation in Paris March 2019
WAS MARKED BY THE REPORTER FOR IDENTIFICATION
BY MR. HEGARTY:
Q. Next I've marked as Exhibit 32 an abstract submission to the 66th Annual Scientific Meeting for the Society of Reproductive Investigation in Paris in

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March 2019, correct?
A. Correct.
Q. For what study does this relate to?
A. This -- this particular one, Talcum Powder Enhances Key Mechanism of Ovarian Cancer, Development and Progression.
Q. Is this the same subject as your manuscript?
A. Part of it, yes.
Q. Has this been accepted?
A. Yes, and I'm going to present it.
Q. Has there been any further communication with this group about this presentation, beyond what we look at here?
A. This group who? SRI?
Q. The SRI?
A. No. We just get an acceptance letter.
Q. Have you prepared the abstract yet?
A. Not yet. You mean the poster?
Q. Well, the poster or the abstract?
A. That's already been submitted.
Q. Do you have a copy of the abstract?
A. You should have it somewhere. It's an abstract.
Q. Well, I don't think we do, but you think

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there is a copy of the abstract?
A. What we submitted to SRI, I think you should have a copy. You should have a copy, yeah. But it's accepted.
Q. Next I want to ask you about this -- this document we initially -- we already marked, which is the submission of a manuscript to Gynecologic Oncology. Can you find that, please?
MS. O'DELL: Exhibit 27?
MR. HEGARTY: Exhibit 27.
THE WITNESS: Okay.
BY MR. HEGARTY:
Q. This submission includes at the bottom, suggested reviewers. Do you see that?
A. Yes.
Q. Were -- are these reviewers you suggested?
A. Yes. They ask you to.
Q. Have you communicated with these reviewers about your manuscript?
A. No.
Q. If you turn to the -- turn to page 13 of this -- of the manuscript, please.
A. References?
Q. No, at the top, conflict of interest. You reported that you have no conflict of interest to

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disclose -- to declare; is that correct?
A. Correct.
Q. So there you made no reference to your serving as a consulting expert for Plaintiffs in the talc litigation, correct?
A. We didn't think we needed to do it.
Q. Why did you think you didn't need to?
A. I -- because we don't think that this is a commercial conflict of interest because I did the work in my lab, and I paid for it from my discretion fund, and everything from that, it's another paper for me, and I'm not gaining any special financial interest from it, other than it looks like any other paper I have.
Q. This manuscript reported results for 48 hours. Why did you change from 48 hours to reporting 72 hours?
A. Yeah. You asked me this question previously, and I told you every 48 hours will be corrected to 72 hours.
Q. So in the manuscript -- so in this manuscript submission, the reference to 48 should be to 72?
A. We fixed it in the SRI manuscript to 72 hours. All the work was done at 72 hours.

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DEPOSITION EXHIBIT 33
Notification of Submission to Gynecologic Oncology
WAS MARKED BY THE REPORTER FOR IDENTIFICATION
MS. O'DELL: Did you put a number on that?
MR. HEGARTY: Yes.
BY MR. HEGARTY:
Q. I've next marked as Exhibit 33 the notification of your submission to Gynecologic Oncology, correct?
A. Correct.
DEPOSITION EXHIBIT 34
Notification From Gynecologic Oncology
WAS MARKED BY THE REPORTER FOR IDENTIFICATION
MS. O'DELL: Did you just mark another exhibit?
MR. HEGARTY: Yes.
BY MR. HEGARTY:
Q. I've next marked as Exhibit Number 34 a notification you received from Gynecologic Oncology where you get your -- your paper was assigned a manuscript number; is that correct?

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A. Which one are you talking about?
Q. 34.
A. Yes. It's an automated e-mail. Yes, what about it?
Q. This is just an -- this is an e-mail advising you that your manuscript has got a number, correct?
A. That's the same e-mail like this one. I got a number, yes. Number --
DEPOSITION EXHIBIT 35
Final Decision, Rejection of Manuscript
WAS MARKED BY THE REPORTER FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I've next marked as Exhibit Number 35 what's entitled at the top Final Decision. This is the rejection of your manuscript by Gynecologic Oncology; is that correct?
A. This is the review results of my, yeah, Gynecology Oncology manuscript.
Q. Included within this document are the reviewer comments, correct?
A. Correct.
Q. Did you provide any response to the reviewer comments?

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A. No. Response to this manuscript -- to this journal?
Q. Correct.
A. No.
Q. Was this the last communication you had with Gynecologic Oncology regarding your manuscript?
A. This is --
Q. 35?
A. Yes.
DEPOSITION EXHIBIT 36
Manuscript to Reproductive Sciences, Submission Date of January 3, 2019
WAS MARKED BY THE REPORTER FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I've next marked as 36 a copy of your manuscript we received from Plaintiffs' counsel last week. This is the manuscript to Reproductive Sciences with a submission date at the very first page of January 3, 2019, correct?
A. Correct.
DEPOSITION EXHIBIT 37
Reproductive Sciences, Submission Date of January 3, 2019
WAS MARKED BY THE REPORTER

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FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I've next marked as Exhibit 37 another document we received from Plaintiffs' counsel last week, which appears to be another copy of the same document?
A. Yes, it's the same. They look the same.
DEPOSITION EXHIBIT 38
Manuscript with Submission Date of October 10, 2018
WAS MARKED BY THE REPORTER FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I'm marking next as Exhibit 38 a copy of a document received late last night from Plaintiffs' counsel, which appears to be a manuscript with a submission date on the very first page of October 10, 2018. Do you see that, Doctor?
A. Yes, I do.
Q. Does this -- does Exhibit 38 represent the initial submission of your manuscript to Reproductive Sciences?
A. Correct.
Q. Did you submit this manuscript with any type of cover letter?

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A. I think so, yes. You should have it.
Q. You think there is a cover letter?
A. Yes.
Q. I've not seen that cover letter, so I don't think we have it.
MS. O'DELL: I don't have it.
THE WITNESS: No? This is --
BY MR. HEGARTY:
Q. If you would turn over to page 13 of this document.
A. Can you give me one minute -- one second, please?
Q. Sure, go ahead.
A. I just want to see. I'm not sure. I can't remember. Actually, Dr. Harper submitted this, so I don't remember. I'll take my answer.
Q. How can you tell that Dr. Harper submitted this?
A. Because I instructed her -- I instructed her to do so.
Q. Do you know whether she included a cover letter?
A. That's what I'm saying, I'm not sure.
Q. If you turn over to page 13 of Exhibit 38, please.

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A. Page 13?
Q. Correct.
A. Okay.
Q. If you look at the conflict of interest section, you state, the authors declare that there is no conflicts of interest, correct?
A. That's what it says, yes.
Q. But in your current manuscript, you do disclose a conflict of interest. Why did you change between your initial submission and your current version?
A. Yeah. This was submitted by Dr. Harper, and when this -- the manuscript came back with -- with the revisions, I revised it according to the reviewer comments, and I noticed that there is a mistake in the conflict of interest, I added it, because we really don't believe that we have a conflict of interest. That's the idea.
Q. When you say we, who are you talking about?
A. The lab, our lab. We don't believe, because we -- this is lab work from our lab, financed by our lab.
DEPOSITION EXHIBIT 39
Correspondence with Reproductive Sciences Regarding Manuscript

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WAS MARKED BY THE REPORTER FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I'm next marking as Exhibit 39 --
MS. O'DELL: I'm sorry, could you pass one this way? These are --
BY MR. HEGARTY:
Q. -- a copy of correspondence with Reproductive Sciences regarding your manuscript, correct?
A. Yes.
DEPOSITION EXHIBIT 40
Response to Reviewer Comments
WAS MARKED BY THE REPORTER FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I'm going to next mark as Exhibit 40 a copy of another document received late last night. Would you tell me what Exhibit 40 is?
MR. HEGARTY: I'm not going to give you a copy, since you gave it to us late last night, and I only have two copies.
THE WITNESS: So this is the --
MS. O'DELL: Why don't you let me see it first so --

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THE WITNESS: Yeah, this is my response.
BY MR. HEGARTY:
Q. Your response to their comments?
A. To the -- to the reviewer comments.
Q. Is this the only response that you prepared to the reviewer comments?
A. Correct.
MS. O'DELL: Other than the resubmitted manuscript, which he's testified to?
THE WITNESS: Yeah, that's the response, yes.
DEPOSITION EXHIBIT 41
Correspondence with Reproductive Sciences Regarding Manuscript
WAS MARKED BY THE REPORTER FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I've marked next as Exhibit 41 additional correspondence you had with Reproductive Sciences regarding your manuscript, correct?
A. They sent me this e-mail, yes. This is an automated e-mail sent to everybody.
DEPOSITION EXHIBIT 42
Chart of SNP Data

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WAS MARKED BY THE REPORTER FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I'm marking next as Exhibit 42 a chart we were provided by counsel for Plaintiffs. What is this chart?
A. This is the SNP data.
Q. The SNP data for your manuscript?
A. For my -- for my manuscript, and for the poster that we're going to submit, to -- to present.
DEPOSITION EXHIBIT 43
E-Mail from Sharon Pepe
WAS MARKED BY THE REPORTER FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I've marked -- marking next as Exhibit 43 a copy we received last time at your deposition, which is an e-mail from Sharon Pepe regarding the cost of your testing, your experiments, correct?
A. Correct.
DEPOSITION EXHIBIT 44
The Role of Talc Powder Exposure in Ovarian Cancer, Mechanistic Approach
WAS MARKED BY THE REPORTER FOR IDENTIFICATION

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BY MR. HEGARTY:
Q. I've marked next as Exhibit 44 a document titled, The Role of Talc Powder Exposure in Ovarian Cancer, Mechanistic Approach. Do you see that?
A. Yes.
Q. Is this the budget document you mentioned at your last deposition?
A. Yes.
Q. Who prepared this?
A. I did.
Q. When was it prepared?
A. September. Middle of September.
Q. Of 2018?
A. '17.
Q. Of 2017. Why did you prepare this?
A. To see how much this project would cost me if I want to do it.
Q. Was this document requested by someone?
A. No.
Q. Did someone ask you to prepare it?
A. No.
Q. Who did you prepare this for?
A. For me, for my lab.
Q. Did you give this document to anybody?
A. This document, I gave it to Beasley Allen.

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Q. Would you turn to the second page of this document, please? With regard to Aim I, did you perform the tests described in Aim I?
A. It was just a proposal.
Q. Did you actually perform the tests?
A. No. My -- that was my plan, my thinking.
Q. Your initial thinking said you -- strike that. You noted with regard to Aim I that you intended to expose cells to increasing doses of talc of 100, 200 and 500, correct?
A. That's what it says.
Q. You also noted that you intended to test a number of markers. When you ultimately did your manuscript, you did not test NADPH, Nox2 and Nox4, GST and 8-OHdG. Why did you not do those tests --
MS. O'DELL: Object to form.
THE WITNESS: I think the activity --
BY MR. HEGARTY:
Q. Other than GST?
A. Yeah.
Q. Why did you not do the others?
A. Financial. I mean, they're all the same. If you do one, so maybe enough to do -- you don't have to do all the oxidated stress marker. You can pick the

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most key one, and it's financial basically.
Q. What was your methodology for picking the markers that you did?
A. The one we published most with, the technology available.
Q. Have you not published on any -- on NA -- NADPH, Nox2 and Nox4 and 8-OHdG?
MS. O'DELL: Object to form.
THE WITNESS: We -- we did publish some paper with NADPH oxidase, yes.
BY MR. HEGARTY:
Q. Why did you not include that marker?
A. As I said, financial.
Q. When you say financial, what do you mean?
A. Money, cost.
Q. It costs more to include it?
A. It costs more to include it.
Q. Is there some publication where you can go to, to determine what the key markers are to do in a test like this?
MS. O'DELL: Object to the form.
THE WITNESS: It's a practice in our lab that we use pro-oxidant as myeloperoxidase, iNOS, nitrite, nitrate, and anti-oxidant as SOD, catalase, and glutathiones. So just a normal -- it's a -- it's

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a -- a practice that we use in the lab.
BY MR. HEGARTY:
Q. If you look at the very end of part -- end of the part of Aim I, it says, we hope to accomplish this aim by October 10th in order to submit our findings to our premier society, Society of Reproductive Investigation, SRI. Do you see that?
A. Yes.
Q. You did ultimately submit some findings to SRI, correct?
A. Correct.
Q. The -- the description below the text says the estimated time to execute this aim is four weeks. Do you see that?
A. Where do you see that?
Q. (Gesturing).
A. Yes.
Q. You did do some of the tests that are described in Aim I, correct?
A. When?
Q. You did some of the tests described with different dosages that you talk about in Aim I, correct?
A. Right, but when? When are you referring to?
Q. At any point in time?

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A. After this?
Q. After this.
A. Yes.
MS. O'DELL: Object to the form.
THE WITNESS: That's what we submitted to SRI.
BY MR. HEGARTY:
Q. And how much time -- total time did it take to execute what you eventually did do?
A. I cannot remember.
MS. O'DELL: Object to the form.
THE WITNESS: I cannot remember.
BY MR. HEGARTY:
Q. If you look at Aim II, do you see that?
A. Yes.
Q. If you turn over to the next page over, the carryover paragraph on the next page at the top --
A. Yes.
Q. -- you report the intent to look at a number of SNPs, and then you list those that include SNPs for BRCA1 and BRCA2. Do you see that?
A. I do, correct.
Q. You did not do those tests, correct?
A. Correct.
Q. Why not?

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A. Expenses.
Q. When you say expenses, were you told not to do them by somebody?
A. Told, no. This is just more money to do it. And -- and unnecessary to do it.
Q. Why did you propose to do it in the first place?
A. Because if you have -- if I have to choose between oxidative -- BRCA1 and BRCA2 are not oxidative stress markers. They're just -- they can have clinical value when you interpret the data using patient with BRCA1 mutation versus patient without BRCA1 mutation.
Q. Why did you propose to do it in the first place then?
A. I just told you.
Q. Why is that?
A. Because when you interpret the data, okay, some data -- some response of patients with BRCA1 negative versus BRCA1 positive, they're different outcome. So this will help in interpret the data.
Q. The reason you didn't test those SNPs was because of expense, correct?
A. Yes.
MS. O'DELL: Object to the form.

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BY MR. HEGARTY:
Q. If you look at Aim III --
A. You're talking about BRCA1?
Q. I'm talking about BRCA1 and BRCA2.
A. Yes.
Q. If you look at Aim III, none of those tests -- strike that. Under Aim III, you have done none of those tests, correct?
A. Not correct.
Q. Well, the Aim III includes looking at normal ovarian epithelial cell lines treated with talc that will be washed and suspended in agar at 500 cells per well and layered on a top of a base of 20 percent agar in a 96 well plate. Did you do that test?
A. No.
Q. Why did you not do that test?
A. What's the right word. Expense. Is that the word.
Q. Did you do any of the tests described in Aim III?
A. Yes, I did.
Q. For purpose of your manuscript?
A. Yes, I did.
Q. Which one?

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A. Apoptosis and proliferation.
Q. Where is that described?
A. Apoptosis, all the way down.
MR. LAPINSKI: Dr. Saed, just make sure you keep your voice up.
THE WITNESS: Oh, sorry. All the way down.
BY MR. HEGARTY:
Q. Show me where.
A. In bold, you see it, apoptosis.
Q. But isn't -- but aren't the -- isn't the analysis for apoptosis to be taken from the cells suspended in agar?
A. No.
MS. O'DELL: Object to form.
BY MR. HEGARTY:
Q. Where do you describe in Aim III the testing that you said you did for apoptosis?
MS. O'DELL: Object to form.
THE WITNESS: We're -- yes. We're really confusing the questions. Okay. One at a time. Which one you want me to answer first?
BY MR. HEGARTY:
Q. Well, let me --
A. Yes, please.

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Q. -- let me make sure that I'm clear. You're describing here evaluating apoptosis using cells in agar, correct?
MS. O'DELL: Object to the form.
THE WITNESS: This is a proposal. I don't have to do everything I said in the proposal, okay. I -- I propose to do transformation assays, and then after I do the transformation assays, I will do apoptosis. That's what I propose to do.
BY MR. HEGARTY:
Q. You did --
A. But I did --
Q. I'm sorry. Go ahead.
A. But I did -- I did apoptosis because I don't want to go through all the expenses doing all this experiment, and the normal ovarian primary -- primary normal ovarian cells are very, very limited, very hard to grow, so it takes more money, more time, more effort to grow them and to do them, and you cannot do this test with immortalized.
Q. You did not evaluate in your manuscript apoptosis using the method described in Aim III, correct?
MS. O'DELL: Object to the form.
THE WITNESS: One question again,

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I'm sorry.
BY MR. HEGARTY:
Q. Doctor --
A. I don't understand what you're saying.
Q. You describe in Aim III a method using cells suspended in agar that -- from which you're going to test for apoptosis, correct?
MS. O'DELL: Object to the form.
THE WITNESS: Not correct.
BY MR. HEGARTY:
Q. How is that not correct?
A. This is a proposal. Again, this is a proposal to do. My proposal was to take normal epithelial cells primary to that assay and look for transformation and then check for apoptosis in -- period. In my manuscript, I chose to do apoptosis on the immortalized cells treated with the talc powder. Does that make sense?
Q. You chose to do a different method to evaluate apoptosis?
A. No, I did not say that.
Q. Well, this method says you were going to extract samples from the cells suspended in agar and test those for apoptosis, correct?
A. I didn't do this in my manuscript. Is that

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what you're saying?
Q. Yes.
A. No, I did not.
Q. Okay. That was my question.
A. I did apoptosis part of it.
Q. Understood.
A. In a different cell line.
Q. Correct.
A. Yes, thank you. I like that.
Q. Now, this -- the test you described in Aim I -- I'm sorry. The test you described in Aim III is a test to look for neoplastic transformation, correct?
MS. O'DELL: Object to the form.
THE WITNESS: All of it, or just the part of the agar and growing up the --
BY MR. HEGARTY:
Q. Well, if you look at the aim, it says exposure to talc results in neoplastic transformation of normal ovarian surface epithelial cells. Do you see that in bold?
A. I do.
Q. That was the aim of this test, correct?
A. Correct.
Q. You were going to do this test and look to

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see whether there was neoplastic transformation of normal ovarian surface epithelial cells, correct?
MS. O'DELL: Object to the form. There are multiple tests described in this paragraph.
THE WITNESS: I don't -- we are talking about something I didn't do.
BY MR. HEGARTY:
Q. Understood.
A. I proposed to do, but I didn't do. It's just a proposal.
Q. Right. You did not do any test to directly look at neoplastic transformation of normal epithelial cells, correct?
A. Not correct.
Q. How is that not correct?
A. Because I did apoptosis and proliferation.
Q. That's a -- those are different tests than you describe here?
MS. O'DELL: Object to the form.
BY MR. HEGARTY:
Q. Correct?
MS. O'DELL: Object to the form.
THE WITNESS: Okay. Let's make this easy. What test you are referring to? Name me -- name one test, please.

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BY MR. HEGARTY:
Q. You purported to do this test --
A. What's this test?
Q. -- using the cells suspended in agar, correct --
MS. O'DELL: Object to form.
BY MR. HEGARTY:
Q. -- in this proposal?
A. That's not a test. A test is something you test. This is growing cells.
Q. You proposed to do tests from cells growing in agar?
A. What tests?
MS. O'DELL: Object.
THE WITNESS: I'm asking you what tests you're asking me?
BY MR. HEGARTY:
Q. The tests you described in this --
A. What tests? Tell me, what tests?
Q. Doctor, can you read this piece of paper?
A. I read it. I am the one who wrote it. I know exactly what I wrote.
Q. And you wanted to do these tests --
A. What these tests?
Q. -- because, as you say at the end, we expect

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that exposure of normal ovarian surface epithelial cells to talc will result in neoplastic transformation of these cells over time, which is critical in establishing a cause-and-effect relationship. You wrote that, correct?
MS. O'DELL: Object. Object to the form.
THE WITNESS: What you read is from here. That is what I wrote.
BY MR. HEGARTY:
Q. And you did not do the tests in Aim III?
MS. O'DELL: Object to the form, misrepresents what he just said.
BY MR. HEGARTY:
Q. Correct?
A. I just said, if you want -- okay. If you want, we can --
MS. O'DELL: No, just be clear.
THE WITNESS: -- spend more time. I'm very clear. I'm very clear.
MS. O'DELL: Be clear in your testimony. Excuse me, Doctor. He's asked you a very confusing question. I've objected to the form. Be clear on what --
THE WITNESS: Okay.

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MS. O'DELL: -- your tests are that you performed.
MR. HEGARTY: Well, it's not very confusing. It's only very confusing to the doctor because he obviously doesn't want to answer.
THE WITNESS: No, no, not at all. Not at all.
MS. O'DELL: That's -- that's really improper, and --
THE WITNESS: I -- I would really answer any question you want me to answer.
MS. O'DELL: Fine.
THE WITNESS: Ask me, please, any questions you want. What I'm trying to say, I don't want to answer something I don't understand. I'm trying to ask you simple question, can you clarify your question, say what tests you are referring to. So that is very simple question. You're asking me what tests --
BY MR. HEGARTY:
Q. I agree.
A. -- I wanted to do. I'm asking you what you are the tests you are looking -- you are talking about.
Q. I agree, my questions have been very simple. Doctor, did you did not perform the tests described in

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Aim III, correct? That was the question.
MS. O'DELL: Object to the form.
THE WITNESS: I did not perform all the tests here. I performed part of it, which is apoptosis part.
BY MR. HEGARTY:
Q. Using the test method you describe in Aim III?
MS. O'DELL: Object to the form.
THE WITNESS: What test method? You see, that's where my concern is, what test method you're talking about.
BY MR. HEGARTY:
Q. The test method involving suspending cells in agar.
A. That's not a test method.
Q. What is it?
A. That's a culture. We treat -- that's not a treatment. This is where you put cells this culture.
Q. Did you do that for purposes of your manuscript?
A. No.
Q. There's a reference at the -- in the third line down to utilizing a neoplastic transformation assay.

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A. What page is that?
Q. Same Aim III we've been long at.
A. 27? Are you talking about 27?
Q. Yes.
A. Reference 27. Okay.
Q. Did you perform a neoplastic transformation assay for purpose of your manuscript?
A. Where is 27. One more time, please.
Q. You described in this aim utilizing a neoplastic transformation assay, correct?
A. Yes.
Q. Did you perform that assay for purposes of your manuscript?
A. No.
Q. Turn over to the last page -- or second to last page, which is Phase II. Do you see that?
A. Phase II. General Methods.
Q. Phase II. Phase II will be the S-nitrosylation of caspase-3 assay/apoptosis. Do you see that?
A. I do.
Q. Did you do that test?
A. I did the S -- the caspase-3 assay/apoptosis, yes.
Q. Did you do the -- did you do the

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S-nitrosylation?
MS. O'DELL: Objection.
BY MR. HEGARTY:
Q. Did you do the S-nitrosylation of caspase-3?
A. No. We did the caspase-3 activity.
Q. Why did you not do the S-nitrosylation of caspase-3?
A. You want to do the S-nitrosylation of caspase-3 if you want to know the mechanism by which caspase-3 is nitrosylated, and since we are not doing the transformation, we're just doing it with immortalized cell lines to figure out if talc has an effect or not, then we just did the activity of caspase-3. S-nitrosylation of caspase-3 affect caspase-3 activity, so it's an incorrect method.
MR. HEGARTY: Let's take a quick break.
THE VIDEOGRAPHER: We're going off the record, the time is 12:08.
(There was a recess taken.)
THE VIDEOGRAPHER: We're back on the record at 12:26.
DEPOSITION EXHIBIT 45
Form B
WAS MARKED BY THE REPORTER

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FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I've marked next as Exhibit 45 a copy of a document we were provided by Plaintiffs' counsel last week that has Form B at the top. Doctor, what is Form B?
A. This is the disclosure of consulting for Wayne State University for faculty.
Q. This is a form you prepared?
A. This is the form they give us to fill out.
Q. You filled out Exhibit 45?
A. I did.
Q. You reported in Exhibit 45 for 2018 your consultation work at four hours every Friday; is that correct?
A. Correct.
Q. Does that accurately describe the amount of time and when you spent that time consulting in 2018?
MS. O'DELL: Object to the form.
THE WITNESS: No. So this is only included the consultation we have half a day a week, from 9:00 to 5:00 during business hours, 9:00 to 5:00 --
MS. O'DELL: Excuse me.
THE WITNESS: -- Monday through

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Friday. After hours, after 5:00, weekends are not included here. This is just the official time of the university.
BY MR. HEGARTY:
Q. So what you list here is every Friday between 9:00 and 5:00 you've averaged four hours of consultation?
A. I have --
MS. O'DELL: Object to the form.
THE WITNESS: I have half a day deducted from my 9:00 to 5:00 obligation to the university. And then --
BY MR. HEGARTY:
Q. And as -- I'm sorry.
A. -- I can work extra.
Q. You don't have to report that working extra?
A. To the university?
Q. To the university?
A. No.
Q. When you say description of consulting owner, what does that mean?
A. The owner of the DS Biotech.
Q. Does the agency, though, refer to who you're consulting for?
MS. O'DELL: Object to the form.

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THE WITNESS: I don't understand the question.
BY MR. HEGARTY:
Q. Well, shouldn't you describe under Agency the entity for whom you're consulting?
A. Not necessarily.
Q. Well, you're not -- you're -- in this -- for this litigation, you're consulting with Beasley Allen, correct?
A. Correct.
Q. Why didn't you identify Beasley Allen under Agency?
A. Unnecessary to do because the consultation with Beasley Allen were done -- was done under the DS Biotech.
Q. Some of the consulting that you did for Beasley Allen was during the week, though, correct, during that half day a week?
A. Friday, yes. I'm allowed to do half a day a week.
Q. Your interpretation of the word agency would be to identify your company that you consult with as opposed to who you're consulting with?
A. That's what I was advised to do by Faculty Affair.

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Q. Who advised you to do that?
A. Faculty Affair.
Q. Who is that?
A. You have the e-mail right there.
Q. Okay. We'll jump to that e-mail.
DEPOSITION EXHIBIT 46
E-Mail with Advice Regarding Form B
WAS MARKED BY THE REPORTER
FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I've marked as Exhibit 46 the e-mail the doctor pointed in follow-up to -- or in connection with an answer he gave to a question as far as how he was advised to fill out Form B. Can you tell me about that advice as -- as it pertains to Exhibit 46?
A. Yes. That's what I consulted with them, that I -- I did not need to itemize what companies under the DS Biotech I consulted with. They don't care. They just want DS Biotech.
Q. The person you spoke with was the person who sent you this e-mail, Kate Laimbeer?
A. Correct.
Q. This notes that you had this phone call -- or strike that. This e-mail, as reflected in Exhibit 46, is dated February 8, 2019; is that correct?

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A. It says so, yes.
Q. Did you have such a discussion with anyone before the February 2019 time period about how to fill out this form?
A. No. It's after my previous deposition that we were talking about conflict of interest, I wanted to make sure that I'm doing the right thing. I called them again, and I discussed with them, and they said I was -- what I was doing is perfectly all right.
DEPOSITION EXHIBIT 47
Form B for Calendar Year 2017
WAS MARKED BY THE REPORTER
FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I've next marked as Exhibit 47 --
MS. O'DELL: Thank you.
BY MR. HEGARTY:
Q. -- the Form B for calendar year 2017; is that correct?
A. Correct.
Q. This again was a form that you filled out, right?
A. Correct.
Q. On this form, you describe under the heading Date, two hours Saturday, and under hours you list

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10:00 a.m. to 12 noon. Do you see that?
A. I do.
Q. We just talked about a form, the Form B before where you said that you needed to only list consulting activity that you were doing during the week. Did that -- did the process or procedure change?
A. No. This is 2017, and it's supposed to be a Friday.
Q. The date is supposed to be a Friday?
A. Friday. That's my consultation time.
Q. I'm going to show you from your last deposition Exhibit Number 4, which were your invoices that were provided at your deposition, and this exhibit shows that you started consulting with Beasley Allen for which you were invoicing them beginning in the October/September time frame through the end of the year. Do you see that?
A. I do.
Q. If you look at those invoices for the 2017 time frame and -- and you do the math, at least the math I did, it comes out to be about a hundred hours of work.
A. Okay.
Q. But on your form that we marked as

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Exhibit 47, you listed --
MS. O'DELL: I'm sorry, Mark. When you say a hundred hours of work, which two invoices did you -- or which invoices --
MR. HEGARTY: I'm adding up invoice -- the first one, the second one, and the third one in --
MS. O'DELL: What are the dates on them, or the invoice numbers?
THE WITNESS: The third one is January.
MR. HEGARTY: They are --
THE WITNESS: 22 and 17.
MR. HEGARTY: I don't see invoice numbers on them.
THE WITNESS: 64.
MS. O'DELL: I think they're in the right corner invoice number, and it's -- you said a hundred hours.
MR. HEGARTY: Invoice number, right.
MS. O'DELL: You said a hundred hours, and they're not a hundred hours that were billed for in 2017.
THE WITNESS: 64 hours was billed on 2017.

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BY MR. HEGARTY:
Q. You have for an invoice dated 1-25-2018, 58 hours?
A. What date is that?
Q. That is invoice 10 -- 10025.
A. That's January.
Q. January. So did you bill --
A. That's the following year.
Q. So your invoice in January of 2018 was 60 hours for that month?
A. That's 25 days in January, yes.
Q. That was -- that would be more than four hours a week, right?
A. Again -- okay. The consultation time is four hours from 9:00 to 5:00 my work, but I can work from 5:00 to 9:00 every day, I can work with weekends. I can work, work, work.
DEPOSITION EXHIBIT 48
E-Mail Dated February 7, 2019
WAS MARKED BY THE REPORTER
FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I've marked next as Exhibit 48 an e-mail dated February 7, 2019 regarding publishing of your manuscript; is that correct?

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A. The SRI?
Q. From SRI; is that right?
MS. O'DELL: Object to the form.
THE WITNESS: This is from SAGE, the proof -- the proofreading.
BY MR. HEGARTY:
Q. This is in connection with your manuscript being published, correct?
A. Yes, the SRI manuscript.
Q. Have you had any further communications with Reproductive Sciences or SAGE about your manuscript since February 7, 2019?
A. No.
DEPOSITION EXHIBIT 49
E-Mail Forwarded by Amy Harper on February 11, 2019
WAS MARKED BY THE REPORTER FOR IDENTIFICATION
BY MR. HEGARTY:
Q. I've next marked as Exhibit 49 an e-mail that was forwarded to you by Amy Harper on February 11, 2019.
A. Correct.
Q. She's forwarding you that e-mail, an e-mail from Reproductive Sciences dated October 10, 2018; is

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that correct?
A. Correct.
Q. How did the -- how did the forwarding of this e-mail come about?
A. I asked her to forward me the -- this letter?
Q. Why did you ask her to forward you this letter?
A. She has access to the submission online, and we needed this letter because you guys asked us for all the communications, so I asked her to provide it.
Q. Did you ask her to provide all communications that she has in her possession with RSI (sic) regarding your manuscript?
A. Correct.
Q. Did she provide any communications to you besides this one?
A. (Gesturing).
Q. That's the same one.
A. Oh. She may. Everything she gave me, I gave you. It's pretty simple.
Q. Dr. Saed, do you know what the GWAS catalog is?
A. Yes, I do.
Q. What is it?

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A. The Genome-Wide Association Study.
Q. Have you ever gone to the website and used the search tool for the catalog?
A. I did.
Q. Have you done it in the last four or five weeks?
A. I did it yesterday.
Q. Why did you do it yesterday?
A. Because I wanted to look for new information about the risk of ovarian cancer with our markers, if there is any updates.
Q. So what searches did you do on the GWAS catalog?
A. If you go to NCBI website -- what search, ovarian -- ovarian oxidative stress and increased ovarian cancer risk.
Q. And I asked you what search because it actually gives you a box you can type search terms into, correct?
A. They do, yes.
Q. And what you just listed were the search terms you typed in?
A. Oxidative stress, risk of ovarian cancer.
Q. Did you print off the results?
A. No.

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Q. Did you also do a search for any of the SNPs that you reported on in your manuscript?
A. In the GWAS?
Q. Correct, in the GWAS catalog.
MS. O'DELL: Doctor, before you answer the question, I would just object to the question to the extent that Ms. Sharko conveyed in a February 6th e-mail, we aren't going to plow old ground, and -- and that was conveyed to Judge Pisano. So you covered this -- this -- this area in detail last time.
MR. HEGARTY: I'm not -- one, I'm not replowing old ground, and two, she represented that because documents were produced late, that it precluded us from covering areas that we would have otherwise been able to cover if we had had more time, and this is one such area that we were not able to cover because we had to spend our time going through documents that should have been produced.
MS. O'DELL: That's what -- what was represented to Judge Pisano by Ms. Sharko in a February 6th e-mail was not what you just said. She said, we aren't going to replow old ground, end quote.
MR. HEGARTY: And I'm not replowing old ground.

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MS. O'DELL: I think you are. I'm just putting you on notice that that was the representation.

MR. HEGARTY: I don't disagree that's the representation, but I do disagree with your contention that I'm replowing old ground.

MS. O'DELL: I think you are, but --

MR. HEGARTY: You can do what you want to do then.

BY MR. HEGARTY:

Q. Doctor, my question was, did you put into the GWAS catalog search any of the SNPs you looked at, catalase, MPO, GSR? Did you do those searches?

A. Not recently.

MS. O'DELL: Object to form.

BY MR. HEGARTY:

Q. You didn't do that yesterday?

A. No.

Q. Did you do any other searches yesterday using the GWAS catalog besides those you talked about?

A. No.

Q. Did you do any other searches -- strike that. Did you do that search in preparation for today's deposition?

A. No.

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Q. Okay. Why did you --

A. Most of the times I do this. Frequently.

Q. So that's a catalog you frequently search?

A. Yes, I do.

Q. Is it an authoritative source for -- for you?

A. Not necessarily, no.

MS. O'DELL: Object to the form.

DEPOSITION EXHIBIT 50

GWAS Catalog Search

WAS MARKED BY THE REPORTER FOR IDENTIFICATION

BY MR. HEGARTY:

Q. I'm going to show you what I've marked as Exhibit Number 50. This is a GWAS catalog search for MPO. MPO is one of the SNPs you looked at, correct, Doctor?

A. Correct.

Q. If you looks at results from that search, none of those results report any association with that MPO with ovarian cancer risk, correct?

MS. O'DELL: Object to the form.

THE WITNESS: Here?

BY MR. HEGARTY:

Q. Correct.

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A. Maybe.

Q. Well, do you read it any differently than I did, I just described?

A. No. What I'm saying is it doesn't have to be reported here. So the SNP is already known, and it's been reported, published. It's not in the GWAS.

Q. This catalog, though, lists -- lists those SNPs that have achieved genome-wide significance for whatever particular risk they're -- you're looking at, correct?

A. What risk you're looking at here.

MS. O'DELL: Object -- excuse me. Object to the form.

BY MR. HEGARTY:

Q. This printout is just of a search of MPO and what significance it is achieved in terms of the studies, correct?

A. No.

MS. O'DELL: Object to the form.

THE WITNESS: Not correct.

BY MR. HEGARTY:

Q. What did I say that was not correct?

A. So what you need to do, the GWAS -- do you want me to explain how it works?

Q. Sure.

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A. 'Cause that's not how you do it.

Q. All right. Explain it to me.

A. Okay. GWAS, they compare -- they take DNA from normal patients, DNA from -- let's say I want to look at risk of ovarian cancer, from ovarian cancer patients, okay, and then they sequence the genome from group, the normal group and the patient group, and then they see which variance in these SNP in this genome that can be associated with this disease.

So when you do the search, you have to put both parameters, not just one. If you put just MPO, it's going to tell you everything that related to what, in relation to what disease. You need to put something next to it.

Q. So according to you, to determine whether MPO has reached genome-wide significance using the GWAS catalog, you have to put in MPO and ovarian cancer?

MS. O'DELL: Object to the form.

THE WITNESS: I didn't say that. I said the MPO that we use, the SNP that we use, okay, it is listed in GWAS, and the -- the -- it is minus four, if I can recall correctly, 63 --

MS. O'DELL: Feel free to look at your manuscript if you need to.

THE WITNESS: Something like that,

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and this has been --
MS. O'DELL: Don't -- don't -- be precise.
THE WITNESS: Minus -- where do I find it now, in my manuscript. Do you want to know which one exactly? Okay, where is the table?
BY MR. HEGARTY:
Q. Finish your answer.
A. Yeah, I'm trying to determine the exact.
MS. O'DELL: If you need the table to finish your answer, Doctor --
THE WITNESS: Yeah, the exact -- yeah. Okay. So here we go. So --
BY MR. HEGARTY:
Q. What are you look at? What exhibit?
A. I'm look at Exhibit 42. Where -- where is that. Where is my manuscript. I need my manuscript. Hold on one second.
I'm just trying to remember what SNP number is going here, and it's not listed in -- in the genome wide. But it has been published about, that's what I'm trying to tell you. But it's not -- I don't find it here. It's minus 463, I believe. But I can't find it.
But what I'm trying to say is that

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there are SNPs that are reported in the GWAS for myeloperoxidase, like for example, this SNP that we -- minus 463 that has been published upon that has been associated with ovarian cancer. That's what I'm trying to say.
Q. Has that SNP achieved genome-wide significance?
A. I don't know.
Q. If you would find Exhibit 40, please.
A. 40?
Q. Four-oh.
A. 40. That's 50. Where is 40. 44, 43. Yes.
Q. Exhibit 40 is a correspondence from you to Dr. Layman, correct?
A. Correct.
Q. Who is Dr. Layman?
A. He is the Chief Editor for Reproductive Science.
Q. Do you personally know Dr. Layman?
A. Do I personally know him, no.
Q. Have you ever met him?
A. I met him once. He comes to the society meeting.
Q. You only met him once then, though?
A. No. I met him during the society meetings,

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maybe once or twice, I don't know. I can't remember.
Q. Have you had conversations with him beyond more than those -- more than those once or twice meetings?
A. The last time I met him was two years ago, over two years ago.
Q. Have you ever had any manuscripts rejected by Reproductive Sciences?
A. Yes.
Q. In the last -- when was the last time you had a manuscript rejected?
MS. O'DELL: Object to the form.
THE WITNESS: When was the last time I had -- I can't remember. I really can't.
BY MR. HEGARTY:
Q. Since your deposition last month, have you given any presentations to anyone at your university or anyone in your profession regarding the results of your tests?
A. Individuals?
Q. Individuals or groups.
A. Agencies?
Q. Or agencies, anybody, since your last deposition?
A. Yeah, Health Canada. I sent them an e-mail.

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Q. What are you --
A. Telling them about my results. I have a paper in press that deals with the effect of talcum powder on the induction of oxidative stress.
Q. When did you send an e-mail to Health Canada?
A. Ten days ago maybe, a week. I can't remember exactly.
Q. Who did you send it to?
A. I went to the website, there was an e-mail that they ask you if you want to report something, clicked on the e-mail, and sent it.
Q. What did you send?
A. I just told you, I sent that I have paper, manuscript in press that shows the effect of talcum powder on oxidative stress markers.
Q. Do you still have a copy of what you sent to Health Canada?
A. E-mail, you mean?
Q. Yes.
A. I'm sure I can find my e-mail.
Q. Did you get a response?
A. I got a response saying that I will be contacted later.
Q. Have you been contacted since you got that

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e-mail response?
A. Not yet.
Q. Did you provide Health Canada with a copy of your manuscript?
A. No.
Q. What prompted you to contact that particular agency with regard to your manuscript?
A. Because that particular agency announced talcum powder as a risk factor for ovarian cancer.
Q. How did you become aware of that?
A. The media. It's everywhere.
Q. When did you become aware of what Health Canada had announced with regard to talc and ovarian cancer?
A. I can't remember exactly.
Q. Did you become aware of it before your deposition last month?
A. Before.
Q. And what prompted you ten days ago, at that point in time, to actually go on the website and then send an e-mail?
A. The manuscript -- I was waiting for the manuscript to get in press.
Q. And what -- what document told you that the manuscript was in press?

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A. This reproof that I got.
Q. You're talking -- you're pointing to Exhibit 40?
A. February -- no. February -- from SAGE. The reproof that I just got, February 7.
Q. So your e-mail correspondence --
A. 48.
Q. I'm sorry, Exhibit 48?
A. (Nodding head).
Q. So your e-mail correspondence with Health Canada would have come after February 7th?
MS. O'DELL: Object to form.
THE WITNESS: I can't remember. I really can't remember.
BY MR. HEGARTY:
Q. Other than communicating with Health Canada regarding your manuscript or your test results, since your last deposition -- I think it was on the 23rd or --
A. 22nd.
Q. 22nd of January --
MS. O'DELL: January 23rd.
THE WITNESS: 23rd.
BY MR. HEGARTY:
Q. -- have you reached out, spoken with, gave a

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presentation to anyone else about your test results or your manuscript?
A. No.
Q. Have you sent -- strike that. Have you communicated with FDA with regard to the findings in your manuscript?
A. No.
Q. Have you communicated with anyone at the medical school for Wayne State regarding your manuscript or your test results?
A. No.
MS. O'DELL: Object to the form.
THE WITNESS: But no.
MS. O'DELL: Other than the author.
BY MR. HEGARTY:
Q. Have you ever prepared --
A. Yes, thank you. Other than the authors.
MR. HEGARTY: Do you want to take a microphone and answer for him?
MS. O'DELL: No. I'll just object.
MR. HEGARTY: Do you think that was proper to add the name to get the doctor --
MS. O'DELL: I think the question was confusing, and -- and he testified to the other co-authors and their positions at the university, one

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of which is -- is a professor at the medical school.
BY MR. HEGARTY:
Q. Have you ever prepared a PowerPoint presentation where you lay out the results of your tests or talk about your manuscript?
A. To whom?
Q. To anybody.
A. Posters is a PowerPoint presentation?
Q. Well, besides the poster.
A. Is that considered a --
Q. Well, you know what a PowerPoint presentation is?
A. That's a PowerPoint presentation.
Q. Just your poster?
A. Yeah.
Q. Okay. Have you -- other than that poster, have you ever prepared a multi --
A. Like an oral talk?
Q. Like an oral talk?
A. Yeah, no.
Q. Do you have any current plans to give any kind of presentation beyond what we've talked about already in terms of the abstract presentation? Is there anything planned for you to speak about your results or your manuscript that we have not talked

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about in this deposition?
A. I'm going to SRI conference in Paris next month, and I'm going to present this work that you see, these abstracts, and Dr. Harper will go to SU and present that in March, all of March.
Q. Is that SRI presentation different than the other Paris presentation that we talked about?
A. SRI is in Paris, SU is in Honolulu, and they're back to back. That's why I can't be in both.
Q. Any other planned presentations --
A. Not yet.
Q. -- regarding your tests or your manuscript that you have not talked about?
A. Not yet.
Q. Is there anything in the works you have not talked about?
A. The works, no.
Q. Dr. Saed, you agree that not all inflammation is the same, correct?
A. I don't understand the question.
Q. Well, is all inflammation, regardless of the type, identical?
A. It says information --
MS. O'DELL: Object to form.
THE WITNESS: -- in front of me

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here.
BY MR. HEGARTY:
Q. Inflammation.
A. Oh, it says inflammation. It says information.
Q. Is all inflammation the same?
A. In what term you are trying to get me to answer?
Q. Well, are there various types of inflammation?
A. Yes, of course.
Q. Do you agree that inflammation doesn't mean -- strike that. Do you mean that -- do you agree that inflammation of tissue doesn't mean that that tissue will become cancerous?
MS. O'DELL: Object to the form.
THE WITNESS: Okay. Can I explain this?
BY MR. HEGARTY:
Q. Yes.
A. Okay. So there are two types of inflammation, okay. Acute inflammation that spike and come back, and that is not commonly linked with cancer development. And chronic inflammation that stays for a long time, and it is lower in magnitude, and that is

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linked to cancer, cause of cancer.
There is also an inflammation -- inflammatory response, which is a normal response of the body, okay, like for example, during ovulation there is an oxidative stress and inflammation associated with, but that's a normal physiological process that is required for ovulation that will completely correct it when that process is done.
Q. I'm going to jump around a little bit, and I'm going to come back to that. But in your manuscript, you report in the Treatment of Cells section on page five --
A. Which exhibit do you have so we can --
Q. Well, in here, it's Exhibit 7 was the original manuscript.
A. Yes, this one?
Q. Yes.
A. Okay. What page?
Q. If you go to page five.
A. Okay.
Q. You list under -- in the section Treatment of Cells as treated with Fisher Scientific or baby powder. Do you see where I'm reading?
A. Yes, I do.
Q. What of your data reported in your

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manuscript is of Fisher talc?
A. None.
Q. Why did you then list in the Treatment of Cells that the treatment was Fisher talc or baby powder?
A. That's a typo, because we've done both, so it's a typo. When we get the proof, we will correct that. And I'm aware of that. We discussed that last time.
Q. And how do the results of your tests show that talc can cause chronic inflammation to ovarian cells?
A. The fact that it induces inflammation. That's -- that's -- that's -- that's a great indication that it is doing something in the body.
Q. How long must inflammation last to be considered chronic?
MS. O'DELL: Object to the form.
THE WITNESS: Okay, yes. So this is invitro studies in cell lines, so to simulate that with what's going invivo, you have to do animal studies. Which by the way, you asked me, but I misunderstood the question about if I have -- have I done invivo studies in animals, and I have done many, but not related to talc. I just want to correct this on the record.

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BY MR. HEGARTY:
Q. You have done many invivo studies --
A. Yes.
Q. -- in animals?
A. Yes, because I was not understanding your invitro cells going to the animals. I have done real invivo studies where I operated on animals and create postoperative adhesions and studied many, many animal models, and I have published all that.
MR. HEGARTY: Could we go off the record real quick?
THE VIDEOGRAPHER: We're going to go off the record, the time is 12:56.
(There was a recess taken.)
THE VIDEOGRAPHER: We're back on the record at 1:22.
BY MR. HEGARTY:
Q. Dr. Saed, you previously worked with your consulting firm, UD Biotech, with Michael Diamond; is that correct?
A. No, that's not correct.
Q. Who is Michael Diamond?
A. Michael Diamond was our reproductive endocrinology chief at Wayne State, and when he was here, we created the company together, but we never did

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anything. So years later he moved to University of Augusta, and when he moved there, he asked to separate from the company. We never did anything together at the company.
Q. Have you had any discussions with Dr. Diamond about your tests with talc or your manuscript?
A. No.
Q. You mentioned your report for this case, which is Exhibit 16. I'm not sure if I've given it back to you, and I think we have a --
A. Thank you.
Q. -- different number of exhibits here. You found your report?
A. That's the report I think.
Q. If you can go to page 20, please.
A. Page 20. Sorry, I'm losing my voice. 20, yes.
Q. In the section Summary of Opinions, do you see that section?
A. I do.
Q. You say, these opinions are made to a reasonable degree of scientific certainty. What does that mean to you?
A. Where do you read, please?

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Q. These opinions are made to a reasonable degree of scientific certainty, and my question is, what does that part of the sentence mean to you? What does it mean when you say your opinions are to a reasonable degree of scientific certainty?
A. They are based on my expertise, training, experience, knowledge of the literature, all that stuff.
Q. Well, I understand that that's what follows, but I mean when you say -- what is the meaning of a reasonable degree of scientific certainty?
A. That's what I explained. That's what I meant. That's how I explained it.
Q. You meant that your opinions are based on my experience, training and expertise, etcetera?
MS. O'DELL: Object to the form.
THE WITNESS: My -- my opinion is based on my expertise, training, experience, and knowledge of literature.
BY MR. HEGARTY:
Q. And that's what a reasonable degree of scientific certainty means to you?
A. Yes.
MS. O'DELL: Object to the form.

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BY MR. HEGARTY:
Q. If you look at the end of that first paragraph, you say, knowledge of the relevant literature and my previous and ongoing research. Do you see that?
A. I do.
Q. Do you have any ongoing research with regard to this subject area?
A. The talc and the inflammation?
Q. Correct.
A. Or the inflammation and cancer, yes, I do.
Q. What is ongoing?
A. We are planning to do more work in this.
Q. What work are you planning to do?
A. More biological work.
Q. What type of work?
A. Maybe look at animal studies, maybe looking at sequencing of some genes.
Q. How far has that --
A. I'm not sure yet.
Q. I'm sorry. How far has that progressed?
A. Not yet.
Q. When you say not yet --
A. We -- the ongoing part is just the cell line, the cell culture part.

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Q. Do you have plans to do any other -- strike that. Do you have any current plans, sitting here today, for other cell studies or tests like you did in your manuscript involving talc?
MS. O'DELL: Object to the form. Would you -- would you mind repeating the question, or read it back, please?
THE WITNESS: What was the question?
BY MR. HEGARTY:
Q. Do you have plans to do -- do you have any current plans, sitting here today, for other cell studies or tests like you did in your manuscript involving talc?
A. Do I have current right now going on in my lab right now?
Q. Either going on in your lab, or that you plan to do or give thought to do?
A. Yes, I am.
Q. What are those?
A. I'm planning to do more cell lines, and I'm planning to do the transformation assay.
Q. What's a transformation assay?
A. The one we spent three hours discussing.
Q. The Aim III?
A. Yes.

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Q. And how far along are those plans?
A. Planning. I don't know.
Q. Do you have a timetable for any of those --
A. Not yet.
Q. -- those -- those proposed tests?
A. Not yet.
Q. Have you gone -- strike that. Do you have plans beyond the thinking stage for any tests involving cell lines or invivo studies that involve talc?
A. Other than what I just mentioned?
Q. Other than what you talked about?
A. Not -- not -- I don't think of anything right now. I may.
Q. Have you prepared any written proposals --
A. No.
Q. -- for additional testing?
A. None.
MS. O'DELL: I think we're at five, Mark.
MR. HEGARTY: Okay. All right. Thank you.
THE WITNESS: Thank you.
MR. HEGARTY: Give me a second.
MS. O'DELL: I'm going to take a short break.

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MR. HEGARTY: All right.
THE VIDEOGRAPHER: We're going off the record, the time is 1:28.
(There was a recess taken.)
THE VIDEOGRAPHER: We're back on the record at 1:31.
EXAMINATION BY MS. O'DELL:
Q. Dr. Saed, I have a few questions for you. I think in front of you I put Exhibit 24, which was a copy of your preliminary study that counsel for J & J marked previously.
A. Yes.
Q. And if you'll turn to the last page of 24. It should be near the top, 'cause I pulled it out previously. Yeah. Is that it? Okay.
If you'll turn to the last page of the exhibit. Just turn it over, I think, because it's front and back. It's a copy of your poster that counsel asked you about earlier.
A. Correct.
Q. And in the results as written on the left-hand side of the poster, is there a suggestion that the results are statistically significant?
MR. HEGARTY: Objection, form.

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BY MS. O'DELL:
Q. Do you report the results as statistically significant?
A. Not as written in the results section, because it says marked increase. Marked doesn't mean they are statistically significant necessarily.
Q. You also were asked some questions early on in your continued deposition this morning, and -- and in regard to the series of questions, you expressed confusion by the question. I think at one point you said there was a mixup. What did you mean by that?
A. A mixup in the question, because the question was a compound question. Each part contradict the other.
Q. Did you --
A. That's my understanding.
Q. Was your -- was your reference to mixup related to data in the lab notebook?
A. No --
MR. HEGARTY: Objection.
THE WITNESS: -- not at all.
BY MS. O'DELL:
Q. Let me ask you to turn to what was marked as Exhibit 1. You can turn to it in your -- in the actual lab notebook if you'd like, but it's the lab notebook

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for the data that's reported in your manuscript. Let me ask you to turn to page -- I believe it is 39.
A. Yes.
Q. And it says -- I think it's Calculation Data is written in at the top.
A. Yes.
Q. Do you see that? And you were asked a number of questions about the column that's marked Average. Do you recall those questions?
A. Yes.
Q. And Dr. Saed, who calculates the average and the normalized average in -- in a table like this in the lab notebook?
A. So all these data were submitted to our biostatistician, and he analyzed all the statistics.
Q. Do you rely on the biostatistician in terms of the type of data analysis that is performed?
A. I do.
Q. And is he or she, the biostatistician, the person that decides the type of calculation that's going to be done and how it is formulated into a spreadsheet?
A. Correct.
Q. And do you defer to the biostatistician for that type of contribution?

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A. Correct.
Q. Do you have any information that would suggest that the information contained in the columns calculated by the biostatistician are incorrect?
A. No.
Q. You've been asked a number of questions today about documents that have been provided over the -- prior to your initial deposition and -- and since that time. Are you aware of any documents in your possession that have not been produced?
A. I'm not aware.
Q. You were asked questions about a budget that you prepared in September of 2017 that was marked as Exhibit 44.
A. Yes.
Q. And it should be near the top.
A. I remember it.
Q. And if you'll -- when you have that in front of you, Doctor, if you'll turn to page three of the budget. And it -- particularly, you were asked -- strike that. Let me start again.
You were asked a series of questions about Aim III of the budget, and there were some questions asked regarding a particular test that was performed in relation to Aim III. Do you recall that

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question?
A. I do.
Q. There was actually a series of questions. In fact, Aim III -- does Aim III compose a number of different types of tests?
MR. HEGARTY: Objection, form.
THE WITNESS: It does.
BY MS. O'DELL:
Q. And which of the tests listed in Aim III have you completed?
A. We did -- we did them with our cell lines. We did myeloperoxidase, we did iNOS, and we did -- we did caspase-3, activity for apoptosis.
Q. Okay. And when you say MPO, what --
A. Myeloperoxidase, and inducible nitric oxide synthase, and then caspase-3, activity for apoptosis. Apoptosis.
Q. And -- and any suggestion that Johnson & Johnson counsel made that these tests were not performed would be incorrect?
MR. HEGARTY: Objection, form.
THE WITNESS: They were performed in our cell lines that we report in the manuscript, yes.
BY MS. O'DELL:
Q. Okay. You were asked about a submission to

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Health Canada. Did you submit the comments, to the best of your knowledge, prior to the deadline for doing so?
A. Yes.
Q. Was your -- when was your manuscript accepted for publication by SRI approximately?
A. I believe January, around that time.
Q. Lastly, you were -- maybe not lastly, but you were asked a series of questions regarding your report, and specifically, the basis for your opinions. Are your opinions in this case based on the research that you conducted and that you have -- the data for which you've included in your report and manuscript?
A. Yes.
Q. And are your opinions in this case also supported by the scientific and medical literature?
MR. HEGARTY: Objection, form.
THE WITNESS: Yes.
BY MS. O'DELL:
Q. You mentioned that you anticipate doing continued research in the future. Do you need additional research to support the opinions that you've provided in this case?
A. No. The opinion based on the data so far collected, which is based on cell lines, is sufficient

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to draw this conclusion --
Q. And -- and --
A. -- and we are -- go ahead.
Q. No, please, go ahead.
A. And we are planning to do some more work.
Q. Okay. What level of confidence do you have in the opinions that you've offered in this case?
A. Great confidence.
Q. Would it be fair to say that you hold -- that in your opinion it is far more than, quote, more likely than not that your opinions are supported by your data and research?
MR. HEGARTY: Objection, form.
THE WITNESS: My conclusion and opinion is based on data from my work here, and they are supported by it, yes.
BY MS. O'DELL:
Q. Last question, Doctor. You were asked a number of questions about invitro models and their usefulness in cancer research. Do invitro models reliably predict the pathogenicity of harmful particulates or other carcinogens in humans?
MR. HEGARTY: Objection, form.
THE WITNESS: Yes.
MS. O'DELL: I've got nothing

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further.
MR. HEGARTY: Just a few follow-up questions. First, I just want to put on the record we want to -- want to request documents that the doctor apparently has not provided. There were abstracts mentioned today, there was correspondence mentioned today that -- that we hadn't seen.
In particular, there's a cover letter to Reproductive Sciences, an abstract for Paris, an abstract for I think the other outlet --
MR. WYATT: Honolulu.
MR. HEGARTY: I'm sorry, the Honolulu -- the Honolulu presentation, and then there's the e-mail to Health Canada, so I just want to put on the record that --
MS. O'DELL: Let me --
MR. HEGARTY: -- we'll be making those requests.
MS. O'DELL: Let me state two things, that the abstract from SRI -- SRI has been provided. The abstract to the SGO meeting in March was provided to Susan Sharko in December by e-mail, as well as the table that was provided, so those have been provided --
THE WITNESS: We did.

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MS. O'DELL: -- to you previously. So I don't want the record to be unclear on that. There may be some other things, but -- but what the doctor has testified to is he has provided everything in his possession.
REEXAMINATION BY MR. HEGARTY:
Q. Doctor, if you look at the abstract -- I'm sorry, look at the poster that you had -- we have been talked about today -- talking about today.
A. Yes.
Q. Do you have that in front of you?
A. I have to find it. Yes.
Q. You reported in this poster that treatment of 20 micrograms per milliliter of the cells with talc showed a marked increase in the anti-oxidant enzymes CAT, SOD-3, GSR, GPX1 and GSTP1, correct, at the 20 microgram per milliliter level?
A. I don't see where you're reading.
Q. Well, I'm not necessarily reading a particular part, but this poster shows a marked increase in the enzymes CAT, SOD-3, GST, GPX1 and GSTP1 at the 20 microgram level, correct?
MS. O'DELL: Object to the form.
Where are you reading? Which table are you referring to?

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MR. HEGARTY: I'm reading the Results section.
THE WITNESS: In the Results section, where does it say 20 microgram?
BY MR. HEGARTY:
Q. Well, you say that -- you show increases in talc-treated ovarian cancer cell lines and in normal ovarian cancer cell lines, all compared to their controls -- their control.
A. Yeah, but there's nothing about 20 microgram.
Q. So is it -- that's why I asked you. Does -- do the results you report in the Results section apply to 20 microgram per milliliter dose?
A. I can't -- I have to go and look through them. I can't remember right now.
Q. You don't know if that's what you're reporting in this --
A. No, no.
MS. O'DELL: Objection.
BY MR. HEGARTY:
Q. -- Results section?
A. No, no. That's not what I said. I said overall results, as I told you, this is preliminary results to show that whether there is a biological

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effect of the exposure of talc to the cells, and that by itself is intriguing. That's the whole objective of this whole work. And if you want details of which one increased how much, I can't tell you from here. I have to go back to the data.

Q. So you would have to look at the data? You couldn't look at the individual graphs?

A. Very hard to see this. Very small. Barely I can see it.

Q. So you can't tell by looking at the 20 microgram per milliliter data, for example, SOD-3, and see if there was a marked increase in the anti-oxidant SOD-3?

MS. O'DELL: Objection.

THE WITNESS: As compared to control.

BY MR. HEGARTY:

Q. Yes.

A. So yeah, it's hard for me to do.

Q. Okay. Do you remember your biostatistician's name? You were not able to recall it.

A. Steven Goyski something. I can find it.

Q. Going back to your Aim III in Exhibit 44, which counsel asked you about. You were asked whether

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you had done those tests and -- some of those tests, and you said you had done those in your cell lines, correct?

A. Yes.

Q. You did not do those tests in cells suspended in agar at 500 cells per well, and then incubated in a humidified incubator for 14 to 21 days, correct?

A. There is need to do that.

MS. O'DELL: Object. Object to the form.

BY MR. HEGARTY:

Q. Did you -- you did not do those tests in those --

A. Specific environment?

Q. -- involved in agar?

A. In this specific environment, no. There was no need to do that.

Q. You mentioned you submitted your comments to Health Canada in advance of the deadline. How did you know what the deadline was to submit your comment?

A. I went -- I went to the website, and I can't really remember when I did that. That's the whole idea.

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Q. Do you have the galley pages yet for your -- your Reproductive Sciences manuscript?

A. Galley? The proof?

Q. The proof.

A. Not yet.

Q. Are you -- do you have currently ongoing -- strike that. Do you have any ongoing inflammatory studies? In other words, are you doing any cell line treatments testing for inflammation currently?

MS. O'DELL: Object to form.

BY MR. HEGARTY:

Q. Let me strike that. That's a bad example -- question. Do you have any current studies looking at inflammation in ovarian cancer?

MS. O'DELL: Object to form.

THE WITNESS: This is the core of our lab. That's what we do.

BY MR. HEGARTY:

Q. Right. But do you have any current studies ongoing?

A. Related to talc?

Q. No. Related to inflammation in ovarian cancer?

A. Of course.

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Q. Okay. How many such studies do you have going on?

A. I don't know. I can't remember.

Q. Can you remember one of them?

A. Yeah.

Q. Which one can you remember?

A. We have identified a new role myeloperoxidase, which is a key inflammatory marker, and we found that we were the first to report that it is expressed in ovarian cancer cells, which it's not supposed to be there, and then people after us confirmed that.

We found that the form that is expressed in epithelial ovarian cancer is the monomer form not the dimer form that is found in macrophages. We -- interestingly, we found that ovarian cancer patients, they have higher levels of oxidated stress in their plasma.

And we ran plasma assay and looked at the form of MPO, and we found that it's a monomer form. Monomer means it is reduced because of oxidation, high level of oxidation. So that's ongoing now in our lab. And we just submitted a grant.

Q. You were asked by counsel if you have plans

to do other studies, which I had asked you about, involving talc in cell lines, and you said we are planning to do these. Who is "we"?

A. We, our lab.

Q. Okay. When you say your lab, who are you -- who are you including in that?

A. My lab, my research assistants, my collaborators, my fellows.

Q. And who are those individuals?

A. Dr. Harper, my -- Dr. Rong, Florie, Dr. Morris, myself, and -- who else can I remember. And we have some -- a guy from Pathology doing some work for us, yes.

Q. And do you know who the guy from Pathology is?

A. Yes. His name -- I'm really bad with names. Do you want his name?

Q. If you can remember it.

A. I can't remember his name, but he -- he does the immunofluorescent staining for us. We have several projects ongoing right now in our lab.

MR. HEGARTY: That's all questions I have.

MR. LOCKE: Can I just ask one really quick question?

EXAMINATION BY MR. LOCKE:

Q. This relates to your Health Canada contact that you had recently. When you contacted Health Canada, did you inform Health Canada that you are a litigation consultant?

A. No.

MS. O'DELL: Object to form.

THE WITNESS: No, I did not.

MR. LOCKE: Thank you, Doctor.

THE WITNESS: Thank you.

MR. HEGARTY: Thank you.

THE VIDEOGRAPHER: We're going to go off the record, the time is 1:48.

(The deposition was concluded at 1:48 p.m.)

CERTIFICATE OF NOTARY

STATE OF MICHIGAN)

) SS

COUNTY OF OAKLAND)

I, Jennifer L. Ward, Certified Shorthand Reporter, a Notary Public in and for the above county and state, do hereby certify that the above deposition was taken before me at the time and place hereinbefore set forth; that the witness was by me first duly sworn to testify to the truth, and nothing but the truth, that the foregoing questions asked and answers made by the witness were duly recorded by me stenographically and reduced to computer transcription; that this is a true, full and correct transcript of my stenographic notes so taken; and that I am not related to, nor of counsel to either party nor interested in the event of this cause.

_____

Jennifer L. Ward, CSR-3717

Notary Public,

Oakland County, Michigan

My Commission expires: 10-27-2019

STATEMENT OF DEPONENT

I have reviewed the above transcript and have listed corrections, if any, on the attached errata sheet,

this_____day of_____, 20____.

_____

SIGNATURE OF THE WITNESS

SUBSCRIBED AND SWORN to before me this _____ day of _____, 20_____.

_____

NOTARY PUBLIC

My Commission expires: _____.

ERRATA

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